APPROACH TO POLLUTION CONTROL

"ENVIRONMENTAL ENFORCEMENT PROGRAM"

SUMMARY

by

Pollution Control Division

Alberta Environment

November 1984

9820-106 Street
Edmonton, Alberta
T5K 2J6

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OVERVIEW

The mandate of Alberta Environment is to maintain, protect, and improve the quality of the environment of the province and to promote a balance between Resource Management, Environmental Protection and the Quality of Life. The Department is committed to achieving this mandate through a process of positive interaction between itself and Alberta's industries and municipalities.

Industries and municipalities which may be potential polluters are required to have a licence-to-operate. This document is issued by the Director of Standards and Approvals. The licence-to-operate stipulates specific pollution control criteria which a facility must adhere to.

ROLE OF POLLUTION CONTROL DIVISION

The Pollution Control Division ensures, that facilities adhere to all applicable environmental control regulations and standards as well as the terms of their licence-to-operate, and monitors the general quality of our environment.

The work of the Pollution Control Division can be divided into two main areas:

- monitoring, surveillance and control;
- enforcement.

MONITORING

In order to determine if facilities are operating in accordance with the terms of their licences-to-operate, the Division regularly reviews data from three main sources:

- data which the facility is required to gather under the terms of its licence;
- data which is gathered by the Division during its periodic spot checks for compliance and general environmental monitoring.;
- public complaints.

ENFORCEMENT

All deviations from the Regulations and Standards set by the licence-to-operate are responded to. However, the particular response of the Divisions will depend on a number of factors including:

- the contravention's degree of severity;
- the frequency and duration of the contravention;
- the severity of the environmental or health impact.

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RESPONSE OPTIONS

Based on the criteria outlined above, the Division has a number of response optio

- conducting a Technical Review;
- issuing a Directive;
- issuing a Control Order;
- request a Stop Order;
- or recommend prosecution.

These responses are listed in the order of their severity and their impact on the facility in question. However, they are not sequential. If circumstances warranted, the Division could immediately issue a Control Order. They could proceed immediately from a Technical Review to recommending prosecution.

This procedure of flexible response ensures that the Division can choose the approach which will resolve the problem as quickly and as effectively as possible.

Technical Reviews

The Technical Review consists of meetings which involve staff from the Pollution Control Division and staff from the facility in question. The Technical Review is the most frequent response of the Division to instances of non-compliance.

The Technical Review is used when the incidence of non-compliance is:

- of limited and/or minor environmental or health concern;
- a minor deviation from standards or guidelines;
- of low frequency and/or duration.

The end result of the Technical Review is an agreement between the Division and facility as to the corrective action which must be taken and the date by which it will be completed. This response allows the facility a degree of flexibility which is in keeping with the nature of the non-compliance.

Directives

A Directive results from a hearing between the Director of Pollution Control and the management of the facility in question. These hearings are held when a previous technical review has been unsuccessful in resolving the non-compliance or is not being acted on quickly enough.

Hearings may also result from:

- emissions which are of greater environmental concern;
- the degree of non-compliance being high and/or of greater frequency and duration.

Issuing a Directive restricts the flexibility of response on the part of the facility. Specific procedures and completion dates are set and the facility is required to provide specific and regular information concerning the steps it has agreed to take to resolve the problem.

After a Directive has been issued, the Division issues a news release to inform the public of its concerns and what the Division has required the facility to do.

Control Orders

The majority of cases of non-compliance can be resolved successfully through Technical Reviews and Directives. However, a Control Order is issued when an emission is:

- likely to cause health concerns;
- likely to have a significant environmental impact;
- in violation of previous committments to the department.

The Control Order is a legal document which removes any flexibility of response on the part of the facility in question. It requires that very specific corrective action be taken within a specific time. Depending on the circumstances, the Control Order may also require that the facility change its operating procedures. Frequent and detailed progress reports are also required.

After a Control Order has been issued, the Division issues a news release which informs the public of the Division's concerns and of the action the facility has been required to take.

Stop Orders

Stop Orders are issued by the Minister of the Environment. A Stop Order requires the immediate elimination of a specific contravention. As a result, a Stop Order may require the complete shut-down of a facility.

A Stop Order is issued when the operation of a facility:

- poses an immediate threat to human life or property;
- is in contravention of its licence-to-operate or any provisions of the act or its regulations and orders;
- has failed to comply with an order from the Director of Pollution Control.

Prosecution

In specific instances, the Division may recommend that the Attorney General's office begin a prosecution. The decision to recommend prosecution is based on:

- apparently deliberate pollution of the environment;
- serious environmental damage;
- continued non-compliance with requests, requirements, directives or control orders issued by the Department.

Based on the legal issues involved, the Attorney General's office makes a decision as to whether or not it will proceed with a prosecution.

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POLLUTION CONTROL DIVISION'S APPROACH TO POLLUTION CONTROL

INTRODUCTION

In many areas of the world, governments are recognizing the challenge of balancing resource and industrial development with environmental quality. In Alberta, this is reflected by the Department of Environment's broad statement of purpose: "to promote a balance between resource management, environmental protection and the quality of life".

This does not mean that there will not be environmental effects when resources are developed, but rather that the benefits (economic and social) must be weighed against the environmental and social costs. On a provincial, regional, or local level, the leaders who control the resources and the environmental programs must decide where this balance lies. The end point is a healthy environment and a healthy economy.

I. BASIC PHILOSOPHY OF DIVISION OF POLLUTION CONTROL ENFORCEMENT PROGRAM

To appreciate the approach used to achieve acceptable environmental quality, it is important that industry and the public at large understand the basis of the pollution control program. If mutual trust and understanding does not exist between the Department, industry and the public, then great effort will be wasted in non-productive activities which do not have a positive effect on our environment.

The overall program is based on the premise that environmental protection can best be achieved on the basis of co-operation and negotiation between government and industry.

The Department's role is to manage the environment to ensure that our air and water resources are protected for the highest desirable use. To ensure optimum usage, the public has a right to know the quality of their

environment. The Division makes available monitoring data gathered by government, for review by the public on request.

The company which causes the need for monitoring should bear the expense of carrying out the monitoring required as a result of its operation. The licence-to-operate, as issued by the Director of Standards and Approvals, specifies the monitoring requirements that a company must undertake. Monitoring may be conducted either by the plant or by company contracts with consultants. The frequency and number of surveys required are based primarily on the emission rates and potential toxicity of the specific pollutants.

The approach of "ambient" self-monitoring has some difficulties in areas where there are multiple sources of the same pollutant as one company may report readings from another company's operations.

In order to ensure that companies properly conduct this monitoring, "Monitoring Directives" are provided and "Quality Assurance" programs are continued and upgraded by the Division. This ensures that the data are credible, accurate, and useful in determining the effect of the facility on the environment and used in the Division's operational assessment of the facility. The "Control Order" is the main enforcement tool of the Division.

The Pollution Control Program takes place in two phases:

1) monitoring, surveillance and control;

2) enforcement.

Ambient conditions result from a specific plant emission or source in an area over which control must be exercised. Ambient conditions are utilized by the Division for "Environmental Management" and in determining the operational control/efficiency of a facility.

When the regulations have been exceeded on a consistent or high basis, the pollutor(s) will be required to take corrective measures according to either a "Directive" or "Control Order" issued by the Director of Pollution Control. Both the Directive and Control Order are public documents and are released with a news release.

In cases of severe pollution or exceptionally high levels of emission there is a recommendation made to the Minister for a STOP Order; or to the Attorney General for a prosecution.

1. Monitoring, Surveillance and Control

The Division of Pollution Control is responsible for monitoring the environment, surveillance of pollution control facilities and their compliance to licence conditions, and conducting the enforcement role of the Department. The Director of the Division of Pollution Control will utilize the following items and policies in implementing the enforcement program.

1. a. For reviewing compliance and occurrence reports from facilities, the Division will consider the following items when there are levels recorded over licence limits regulation or guideline levels"

   i) level of emissions relative to licence-to-operate limits;

   ii) frequency and duration of the emission;

   iii) degree to which the emission was of health or environmental significance;

   iv) accuracy and location of analytical equipment;

   v) facility operating mode (i.e. normal, start-up/shut-down, upset on emergency conditions) and procedures utilized during the specific operating mode;

vi) ambient levels recorded during the emission period and whether or not there was any environmental damage;

vii) past performance and operating efficiency of the facility;

viii) meteorological conditions before and during the emission (i.e. inversions, wind direction, velocity, etc.);

ix) reason for the emission (i.e. emergency conditions, equipment failure, human error, inadequate operator training and equipment maintenance, upset condition, etc.);

x) location of the facility and the possibility of other source(s) causing the emissions;

xi) timeliness of reporting and implementation of short and long-term corrective measures;

xii) whether or not the corrective measures taken resulted in the least amount of emissions being discharged to the environment;

xiii) whether or not the facility is in a debugging phase or commissioning new equipment;

xiv) whether or not the facility is under an upgrading program and, if so, whether or not the upgrading program is still current;

xv) is the facility under a Directive, Control Order or Certificate of Variance?

Although the goal for compliance is 100 percent, the enforcement program recognizes that compliance with the licence emissions limit 100 percent of the time is not practical. The Acts and Regulations requires that companies report all uncontrolled or unlicenced emissions (contraventions) to the Director to ensure protection of the environment. On notification, the Division of Pollution Control

is to review the emission and to ensure that both short and long-term preventative or corrective measures are implemented to preclude the problem recurring.

Failure to report uncontrolled and unlicenced emissions is viewed as a very serious violation of the regulations. Such non-reporting of emissions likely will result in a recommendation to the Attorney General to prosecute.

It should not be assumed that when a contravention is reported it is thereby sanctioned. The Division has a responsiblity to review the circumstances relating to all contraventions, the consequence of the emission and to take the appropriate action.

1. b. Monitoring of the environment by the Division of Pollution Control is to be conducted:

   i) to obtain baseline data to be used for the assessment of the quality of the environment and effect of emissions from facilities on the environment;

   ii) to ensure accuracy of a facility's "required-monitoring program", and compliance with its licence-to-operate;

   iii) to obtain data for resolution of specific pollution problems or complaint resolutions;

   iv) to obtain data and information necessary to support prosecutions.

Compliance monitoring is conducted without pre-notification to the facility.

1. c. The responsibility of major environmental monitoring requirements is placed directly on the facility that creates a

need for the monitoring and by requiring specific monitoring in the licence-to-operate. To be convinced that there is no question about the credibility of the data, the Division

produces codes and Monitoring Directives, which assure acceptable data gathering practices and analytical techniques. In addition, the Division conducts "spot checks" of the company-operated control instruments.

These quality assurance programs are extremely important to the Department and industry. Knowing that there is a data quality assurance program assures industry, Department, and the public that the data are credible and therefore worth collecting.

The quality assurance program is:

i) to provide monitoring directives for use by the facility in obtaining proper data;

ii) to review monitoring sites and instrumentation used to collect data;

iii) to provide for inspections of monitoring sites and ensure acceptable sampling locations and operation of station;

iv) to conduct random observations of the calibration of monitoring instruments;

v) to conduct random calibrations of monitoring instruments at facilities;

vi) to conduct occasional reading of the charts from industry-operated monitoring recorders and comparison of the results with those reported by the company;

vii) to operate government mobile monitoring units to monitor the environment;

viii) to ensure samples collected and analyzed at the facility are accurate and the results compatible.

1. d. In cases where a plant has installed and is operating their pollution control equipment in accordance with their licence-to-operate, and the ambient regulations are not being met due to meteorological conditions, an "Intermittent Control System" may be required to be implemented by the facility. The company may have to cut back its operation, thus reducing its emissions below licence conditions, for protection of the environment.

1. e. It is recognized that certain operating conditions, like start-up/shut-down conditions, may result in emissions that are higher than licence conditions. Where this happens the facility may be required to consider the meteorological dispersion conditions before commencing these specific operating conditions.

2. Enforcement

The second step of the Division's enforcement program is the actual enforcement activities conducted by the Division of Pollution Control. Companies have to realize that the Department is serious about ensuring compliance with the Acts, Regulations, licences, and guidelines. However, companies will be given a reasonable opportunity to comply with the requirements.

As previously stated, the Department endeavors to ensure environmental control through cooperation and persuasion. Where these do not work, Directives and the full authority of the Acts through Control Orders or Ministerial STOP Orders and/or court actions will be implemented.

The hierarchy of enforcement, in increasing order of severity and environmental concern, is:

A) Technical

A process of positive interaction with the facility to resolve the problem through technical discussions at the professional level.

B) Directive

Hearings with management to resolve problems, followed by the issuance of a "Directive" issued by the Director of Pollution Control. Directives are accompanied by a news release.

C) Control Order

Issuance of a "Control Order" by the Director of Pollution Control outlining specific corrective action to be taken by the company within stated time restraints. Control Orders are accompanied by a news release.

D) STOP Orders

Issuance of a "STOP Order" by the Minister of Environment, eliminating the emission. Stop Orders are accompanied by a news release.

E) Prosecution

A Prosecution may be recommended, to the office of the Attorney General, at any step of the enforcement hierarchy or for non-compliance with the environmental Acts and Regulations.

The hierarchy of enforcement is initiated at <u>any step</u> (Figure 1) depending on the review of all the items in Section I(a). This procedure

of "flexible response" ensures that the Director can choose the approach which will resolve the concern as quickly and effectively as possible.

The Division becomes aware of emission problems through the review of monthly compliance reports, occurrence reports from companies, division monitoring and surveillance programs, other departments, agencies, and the public.

A. Technical

The technical approach is used when: the emission problem is of limited environmental or health concern; the levels are just over, or close to, the licence requirements, a regulation, and a guideline; and the frequency of the occurrence is low. Pollution Control Division staff and staff from the facility hold technical meetings and reach agreement on methods to resolve the problem. These meetings are finalized through correspondence and agreements as to the corrective action to be taken and dates by which compliance will be attained.

B. Directive

The issuance of a "Directive" results from a hearing held between the Director of Pollution Control and management of the facility. Hearings are held when: technical review falters or is too slow; the emissions are such that they may start to be of environmental concern; emissions are in excess of limits (licence, regulations, or guidelines) and occur frequently; or the emissions themselves are of concern to the Department. As a result of the hearing, procedures to resolve the problem are agreed upon with dates and reporting schedules established. Directives are issued to request additional information on the specific concern, to confirm the corrective action agreed upon with the management of the facility, and to require status reports on the work that is to be

ENFORCEMENT HIERARCHY

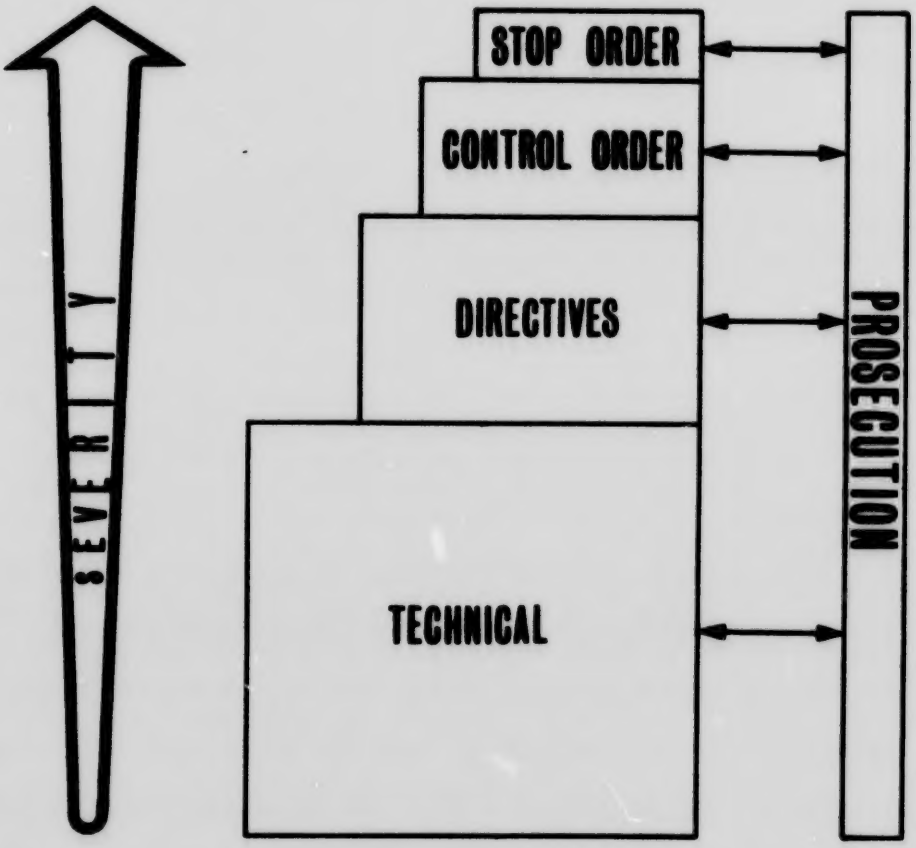

FIGURE 1

undertaken at specific times. News releases are issued to notify the public what the Department has requested of the company and what they have to do to resolve the concerns.

C. Control Order

Control Orders are issued by the Director of Pollution Control when the emissions: are likely to have an environmental effect; may commence to have some health significance; are extremely in excess of licence or guideline requirements; are frequently over licence or guideline levels; and where previous commitments to the Department have not been met. As a result of a hearing between the Department and management of the facility, very specific corrective items are required to be performed by the company in a stated time period. Interim measures may be required to limit the emission until the corrective measures are in place. Periodic progress reports are required.

A Control Order is a legal document that is duly served on the company. A news release is issued informing the public of the action to be taken by the company.

D. STOP Orders

A STOP Order is the strongest and most immediate enforcement method and is issued by the Minister of the Environment. STOP Orders require that the specified contravention be eliminated or that the operation of any facility be stopped or shut-down for a specified period where the facility:

i) has contravened or is contravening a provision of the Act or a regulation or order under the Act, or;

ii) has failed to comply with an order or direction of the Director of Pollution Control under the Act or the regulations, or;

iii) owns or operates any plant, structure, or thing that is a source of air or water pollution, which the Minister considers to be an immediate danger to human life or property or both, or;

iv) has contravened a term or condition of the licence.

E. Prosecution

It has been the Division's experience that enforcement can be achieved more effectively through the use of positive interaction and technical discussions, Directives and Control Orders.

The decision to recommend to the Attorney General's that a prosecution be commenced is based on the merits of each particular instance. Generally the reasons for prosecuting are:

i) continued contraventions contrary to technical discussions and direction from the Department;

ii) for failure to respond to or comply with the requirements of a Control Order or Stop Order;

iii) when negligence or indifference is shown by the facility in spite of discussions and direction from the Department;

iv) for deliberate acts resulting in excursion or pollution of the environment;

v) when serious environment pollution has been caused.

The Department places significant importance on the immediate reporting of unlicenced and uncontrolled emissions to ensure corrective action is taken by the company for the protection of the environment. Prosecution will be recommended for non-reporting of unauthorized releases as outlined in the regulations.

Notwithstanding the prevalence of strict liability standards in the relevant legislation and regulations, the Department of the Environment, in attempting to provide guidelines to facilities herein, is in no way

altering the standard of proof or facility requirements for those offences that may be characterized as either mens rea offences or offences of absolute liability.

The use of "legal" action should not be taken as the only criterion for measuring the effectiveness of the enforcement program. As previously outlined, the program has two basic phases--prosecution or legal action is only one of the five modes of the enforcement phase. The success of the enforcement program to date is exemplified by the excellent condition of our environment.

ENVIRONMENTAL ENFORCEMENT PROGRAM

The Technical Approach

Pollution Control Division
Alberta Environment
November, 1984

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ENVIRONMENTAL ENFORCEMENT REVIEW

The Technical Approach

Introduction

In the process of enforcing environmental controls, the technical approach (within the "Hierarchy of Enforcement"), is usually the first step used by the Division of Pollution Control. Being a very successful tool for resolving non-compliance situations and concerns that the Division encounters, it is the most frequently used part of the enforcement program. During technical meetings, the Division advises the facility that environmental performance indicators or other data show that a particular situation is not acceptable and that corrective action is required.

The Division establishes technical enforcement meetings with facilities that are experiencing deviations from regulations, standards or guidelines resulting in low environmental significance. In addition, these meetings are arranged with facilities, for which although there is no hard data to that effect, they may still cause limited or minor environmental concern (odors, smoke, dust, taste or odor in drinking water etc.).

The Process

There are three most common routes which give rise to the need to take this first step in the enforcement program: the required industry data, data gathered by government agencies, and public complaints and/or concerns.

Through the Licensing process, the facilities are required to collect environmental quality data and submit them regularly to the Division for review. The Division staff compare the submitted data to criteria or standards which have been established through regulations, licenses or guidelines. Matters such as the method of data collection, facility operations and data quality assurance are but a few of the items which are considered. In some cases the resulting comparisons are used as an indicator of environmental performance while in other cases the data shows whether the facility is in compliance with legislation or Licences to Operate. This review identifies whether there is a need for enforcement action.

The data collected by the Division itself is reviewed and utilized in the same manner.

Public complaints often point the Division to problem situations for which no monitoring data can be collected (air and water odors, smoke, color or taste of water, etc.), or to cases where the operator is not required to collect data e.g., small processing plants. Division staff investigate the complaint, and based on the investigation, decide whether there is need for corrective action identified.

Usually before Division personnel meet with staff from the facility, the latter are made aware of the concerns, and at the meeting the data is identified and reviewed. Agreement is reached with regards to the need for remedial action and the form it should take. The facility suggests either a program and provides a schedule at the meeting or will, at a later date submit a written proposal.

If the facilities proposal is not acceptable to Division it informs the facility which are the areas that are not satisfactory. Matters such as regulated or licensed limits are not negotiated, neither are objectives or guidelines. Items such as the time frame to complete a corrective action or for a longer term project, or the type of interim improvements, are open for discussion. Once an agreement is reached, the program is finalized through correspondence.

The Division follows up to ensure compliance with the agreement.

Historic Information

The Division has, like other environmental agencies, been using the technical approach of positive interaction to solve problems since its inception.

From July 1, 1983 to June 30, 1984 there were, as shown in Table 1, 600 enforcement activities which would fall into the technical area, involving a total of 482 different facilities. These activities include office meetings, and on site meetings and inspections. For the same time period, the Division used more stringent enforcement procedures, such as Directives, Control Orders, Prosecutions and Stop Orders, on 17 occasions.

TABLE 1.
TECHNICAL APPROACH SUMMARY

Program Area	No. of Technical Meetings	No. of Facilities Involved
Air	205	122
Municipal Engineering	345	320
Water	50	40
Total	600	482

These figures point to the high level of success or effectivenss of the Technical approach while only 2.8% of the cases required further enforcement action to satisfy the environmental concern.

For example, the Air Quality Control Branch activities utilizing the technical mode of the enforcement program show of the 205 meetings, that 155 resulted from the review of Department collected or plant submitted data and 50 resulted from complaints registered with the Department.

It is worth noting that in the air pollution control area alone, during the 1978-1983 period, Alberta industry spent in excess of $343,000,000 on air pollution control equipment. Annual operating costs were estimated to be in the order of $85,000,000.

ENVIRONMENTAL ENFORCEMENT PROGRAM

THE DIRECTIVE

Pollution Control Division
Alberta Environment

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Directives Under Clean Air Act I-2

Directive Under Hazardous Chemicals Act I-6

ENVIRONMENTAL ENFORCEMENT PROGRAM

THE DIRECTIVE

The directive is the second step in the "hierarchy of enforcement" in the Pollution Control Division enforcement program. It may be issued to formalize discussions or decisions based on the technical meetings or to obtain information requested outside of the conditions attached to the licence-to-operate. Directives are also used in order to reveal any trends toward exceeding licence standards, or when they cause specific concern to the Division.

The Directive may contain a request for additional information on a specific concern, confirmation on agreed upon corrective actions, and/or a request for status reports on any of these. It is accompanied by a formal news release, to ensure that the public is informed of the details of the Directive and of the action that the company must take to resolve the concerns raised in the Directive.

There is a major difference between a Directive and a Control Order (see discussion below). Control Orders are legal documents under the Clean Air Act, Clean Water Act, Agricultural Chemicals Act and Hazardous Chemicals Act, and are issued when more direct action is required. The Directive is a formalized agreement and confirmation on matters dealing with providing additional information, time tables, status reports, or corrective actions for the problem at hand. A Directive is not necessarily an intermediate step before the issuance of a Control Order.

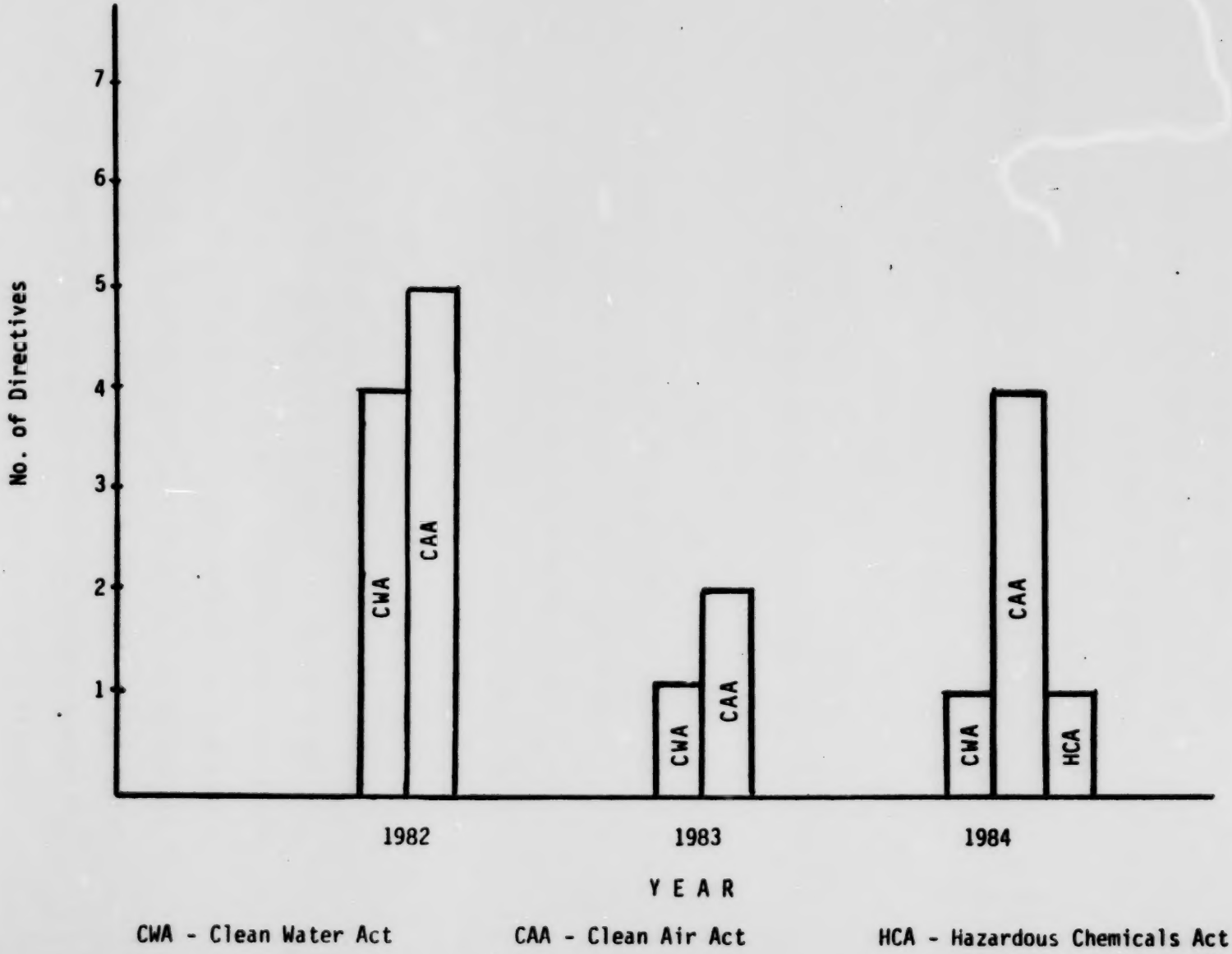
Compliance with the Directive means the company is within the limits to overall compliance with its licence-to-operate, and no more enforcement action is required. If the Directive requirements are not met, a Control Order or prosecution may be implemented.

Directives may also be issued together with Control Orders. For example, a Directive was issued to Premier Resources Gas Plant in Killam concurrently with an Emission Control Order under the Clean Air Act: the Directive asked for the specific cause and quantity of H_2S emissions released during a recent plant operational problem, the Control Order required the company to modify their equipment to minimize or prevent the release of hydrogen sulphide, as well as to man the plant 24 hours a day. Brief details relating to each of the Directives are included in the Appendix.

Since 1982, the beginning of the use of Directives in the enforcement program, 18 Directives have been issued (see Figure 1), eleven of them - under the Clean Air Act, six - under the Clean Water Act, and one - under the Hazardous Chemicals Act. Of these 18 Directives, none required follow-up with control orders or prosecution to obtain compliance. Appendix I provides a summary of the Directives that have been issued by the Director of Pollution Control.

The 18 Directives, reviewed and characterized according to the events which triggered their issuance, can be divided into six categories:

Figure 1. Directives Issued by the Director of Pollution Control.



1) Ambient monitoring or conditions, refering to general monitoring, such as the ambient air monitoring or surface water quality monitoring.

2) Company source monitoring data, based on information submitted in the monthly reports, pursuant to the licence requirements and standards.

3) Division source monitoring data, data obtained by the Division through manual stack surveys conducted at facilities.

4) Continuing source emission monitoring data, data obtained by industry through stack emmision monitoring and submitted to the Division.

5) Licence condition or legislation requirement, based on additional licence reporting or monitoring condition, or under a specific section of the environmental legislation.

6) Public complaints, through single or repeated complaints by the public which lead to further follow-up actions.

Table I indicates the characterization of the Directives issued by the Pollution Control Division.

The Directive has become an effective step in the Division's enforcement procedure. It allows the Division to formalize many commitments and agreements reached between parties, without going to the more serious action of a Control Order. More importantly, it brings to the attention of Alberta's citizens the details of the enforcement process carried out by the Pollution Control Division and Alberta's industry and municipalities.

Table 1. Characterization of Directives Issued by Pollution Control Division

DIRECTIVE	Characterization Events Resulting Directives being Issued. Ambient Monitor. or Cond.	Source - Company Monitor. Data	Source - Division Monitor. Data	Source - Continuing Automatic Data	Licence Condition or Legis. Requirement	Public Complaint.
CLEAN WATER ACT						
Uniroyal Chemical		x				
Celanese Canada		x				
Luscar Ltd.					x	
Diamond Shamrock		x				
Peace River (Mun. Eng.)					x	
Drumheller (Mun. Eng.)						x
HAZARDOUS CHEMICALS ACT						
Kinetics Eco. Resources Group			x			
CLEAN AIR ACT						
Canadian Superior	x					
Chevron Standard	x					
Dow Chemical		x				
Canada Packers		x				
Canada Cement					x	
Suncor		x			x	
Diamond Shamrock				x		
Gibson Petroleum						x
Premier Resources	x				x	
Syncrude Canada		x		x		
Money's Mushrooms						x

APPENDIX I

I-1

WATER QUALITY CONTROL DIRECTIVES

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE
UNIROYAL CHEMICAL	Clover Bar	March 10, 1982	Contaminant entering underground freshwater. Report required by April 16, 1982.	April 16, 1982 (Complied with)
CELANESE CANADA INC.	Clover Bar	March 24, 1982	Same as above.	April 16, 1982 (Complied with)
LUSCAR LTD.	Edmonton	May 14, 1982	Analyses not conducted. Annual report required.	May 31, 1982 (Complied with)
DIAMOND SHAMROCK	Ft. Saskatchewan	June 15, 1982	Contaminants in wastewater dis charged to NSR. Performance data and details required by .... Review and comparison by	(Complied with) June 30, 1982 Aug. 31, 1982
PEACE RIVER (Municipal Eng.)	Peace River	March 1, 1982	Eliminate septic tank discharge.	Oct. 31, 1984 (Complied with)
DRUMHELLER (Municipal Eng.)	Drumheller	April 26, 1983	Operation of water treatment plant & sewage lift stations.	May 31, 1983 (Complied with)

	COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
	Canadian Superior	Harmattan	June 1, 1982	- submit report on status of D-3 wells, findings as to modifications at plant, results of plume dispersion calculations based on present production rates and identification of H_2S sources	August 31, 1982	Complied with.
2	Chevron Standard	Kaybob South #3 Beaverhill Lake Unit #3	July 15, 1982	-submit report on reviewing degassification process, quantification of H_2S emissions, results of H_2S emission projections, information gathered from correlating H_2S ambient contrav. with plant activity, results of mobile monitoring program	October 31, 1982	Complied with.
3	w Chemical	Ft. Sask.	July 23, 1982	-submit information on VCM, HCl and Cl_2 stack emission contraventions, corrective actions, plume dispersion calculations, quality assurance procedures re: stack gas analyzers, for the VCM plant.	August 20, 1982	Complied with.

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Canada Packers	Calgary	July 22, 1982	-submit reports on optimization of odor control equipment and preventative maintenance and feasibility study	August 13, 1982 October 15, 1982 (feasibility study)	Complied with.
Canada Cement Lafarge		September 22, 1982	-submit report on steps to be taken to reduce frequency of abnormal dust emissions, results of haze and odor monitoring, operating criteria practiced at plant during S/D's and S/U's to minimize dust, review of waste dust disposal, and update on fugitive dust control program	October 29, 1982	Complied with.
Suncor	Ft. McMurray	May 10, 1983	- information package regarding necessary upgrading work and schedule on issues of sour water stripper upgrading, continuous emission monitors, particulate emission control, sulphur plant reliability, contingency plan for plant emergencies	Response report due on June 15, 1983	Report received. Followup continuing

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Diamond Shamrock Alberta Gas	Ft. Sask.	February 23, 1983	-steps and procedures when stack gas contraventions occur -corrective and preventative actions re: stack emission contraventions -quality assurance program for continuous stack gas analyzers -plume dispersion calculations	February 28, 1983 March 21, 1983 March 21, 1983 March 21, 1983	Complied with.
Gibson Petroleum	County of Strathcona	April 4, 1984	- submit report detailing circumstances of incident, (spill) cleanup procedures, preventative measures		Complied with.

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Premier Resources	Killam	September 17, 1984	- report on exploration of incident on Sept. 5, frequency of H_2S release in past year, how H_2S emission from flare are currently detected and what improvements are to be taken	October 12, 1984	Complied with.
Syncrude Canada	Mildred Lake Oil	July 30, 1984	- information package discussing reasons for high stack emissions in July and corrective actions to prevent re-occurrence - discussion of fugitive H_2S emission control program identifying sources and measures to be implemented in abatement.	Due on August 15, 1984 Due on October 1, 1984	Report rec'd followup continuing. Report received. Followup continuing.
Money's Mushrooms	Airdrie	February 23, 1984	- remove waste compost pile - investigate odor control alternatives and report - outline steps to minimize odors in meantime	March 31, 1984 June 15, 1984 (extended to June 29, 1984) March 16, 1984	Complied with.

HAZARDOUS CHEMICALS ACT DIRECTIVE

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE
KINETICS ECOLOGICAL RESOURCES GROUP (1982) LTD.	Nisku	Jan. 16, 1984	To secure and upgrade new storage facility. Amended in February 1984.	Complied May 31, 1984

ENVIRONMENTAL ENFORCEMENT PROGRAM

CONTROL ORDERS

Pollution Control Division
Alberta Environment

November 1984

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ENVIRONMENTAL ENFORCEMENT PROGRAM

CONTROL ORDERS

Control Orders follow technical meetings and Directives in the enforcement hierarchy. They are legal documents and may be issued by the Director of Pollution Control to require the facility to take specific action in order to limit or control emission or discharge to the environment.

The nature of the pollution problem, possible health concerns, and severity of environmental impact, all influence the issuance of a Control Order, the time frame for compliance as well as interim operational requirements. Control Orders can be issued under the Clean Air Act (Section 13), the Clean Water Act (Section 14), the Agricultural Chemicals Act (Section 18) and the Hazardous Chemicals Act (Section 6). They may be issued if the regulation or licensed limits are being contravened, or if the pollution:

i causes or is likely to cause injury or damage to the quality of the natural environment;

ii causes or is likely to cause injury or damage to property, plant or animal life;

iii adversely affects or is likely to adversely affect the health or safety of any person.

A Control Order may be issued to the facility without going through technical meetings and Directives. Normally, the facilities' management is given the opportunity to control the source of pollution prior to the Control Order being issued. All Control Orders are reviewed by the Attorney General's Department for

content and enforcebility prior to their issuance. A news release is issued once a Control Order has been served, thus bringing the pollution concerns and the control requirements to the public's attention.

The evidence basis for issuing a Control Order may be:

i) the result of a plant inspection, either routine (40%) or in follow-up to a public complaint (43%);

ii) source/emission data or ambient environmental quality data gathered by Division staff (3%);

iii) environmental monitoring data required by License, and submitted by industry in compliance with their respective licenses (14%)

Table 1 shows the environmental quality data that triggered the issuance of the Control Orders under the different Acts. From 1972 to the present time a total of 172 Control Orders were issued to 112 pollution facilities. Table 2 shows the number of Control Orders issued per year to specific emission segment groups. The individual pollution sources vary from a small incinerator behind a grocery store to the largest and more complex industries in the province (i.e., a pulp mill, an oil sands plant and fertilizer plants). A summary of all Control Orders issued is attached in the Appendix.

Control Orders resulted in compliance in more than 95% of the cases. Only 5 cases, Lawrence Meier Paving, Town of Stony Plain, Houg Cement, Town of Airdrie and Diamond P. Arabians, required follow-up action in the form of a stop order or prosecution. Some pollution sources received more than one Control Order during this

TABLE 1

ENVIRONMENTAL QUALITY ASSESSMENT DATA OR INDICATOR
THAT TRIGGERED THE ISSUANCE OF CONTROL ORDERS

	Ambient Monitoring Data	Emission Source Data (Sampling)		Division Staff Inspections	Review of Licenced/ Legislated Requirement	Public Complaint
		Company	Division			
Chemical Control Order	-	-	-	11	-	1
Emission Control Order	2	4	-	61	2	66
Water Quality Control Order	-	3	5	-	15	11
Total	2	7	5	72	17	78

Note: Several Control orders were triggered equallity by more than one catagory and therefore the total is slightly higher (181 versus 172) compared to the actual number of Control Orders issued.

TABLE 2

LISTING OF THE CONTROL ORDERS ISSUED BY THE POLLUTION CONTROL DIVISION BY FACILITY CATAGORY, 1972 to 1984 (to date)

EMISSION CONTROL ORDERS (CLEAN AIR ACT)

Emission Source/Industry	1972	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	Total
Agricultural	1	-	1	-	-	-	-	-	-	-	-	-	2	4
Asphalt	1	1	-	-	-	-	3	29	-	1	-	-	-	35
Cement	-	-	1	2	-	1	-	-	-	-	-	-	-	4
Chemical	-	-	1	1	-	-	-	-	1	-	-	-	-	3
Coal	-	1	4	-	-	-	-	-	-	-	-	-	-	5
Fertilizer	-	-	2	-	-	-	-	2	-	-	-	-	-	4
Foundry	-	1	1	-	-	-	1	-	1	1	-	-	-	5
Lime/Wallboard	-	-	-	-	-	3	-	-	-	-	-	-	-	3
Meat Pack./Rend.	-	7	4	-	-	3	-	1	1	-	-	-	-	16
Misc.-Dust	-	4	-	-	-	-	-	-	-	-	-	-	-	4
Misc. Incinerator	-	1	1	-	1	1	-	-	-	-	-	-	1	5
Oil & Gas Ind.	-	-	-	-	-	-	-	-	-	-	1	-	1	2
Oil Recovery	1	-	-	-	-	-	1	-	-	-	-	-	-	2
Oil Sands	-	-	-	-	1	-	-	-	-	-	-	-	1	2
Open Burn./Landf.	-	6	-	1	1	3	-	-	-	-	-	1	-	12
Pulp Mills	-	-	1	1	-	-	-	-	-	-	-	-	-	2
Wood Products	-	5	10	-	-	-	-	-	-	-	-	-	-	15
Wood Treating	-	-	-	-	-	-	-	-	-	-	3	2	-	5
	3	26	26	5	3	11	5	32	3	2	4	3	5	128

WATER QUALITY CONTROL ORDERS (CLEAN WATER ACT)

Emission Source/Industry	1972	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	Total
Agricultural	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Chemicals	1	1	-	-	-	-	-	-	-	-	-	-	-	2
Coal	-	-	1	-	-	1	-	-	-	-	1	-	-	3
Gas Processing	1	-	-	-	-	-	-	-	-	-	1	-	-	2
Office Bldg.	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Oil Sands	-	-	-	-	1	-	-	-	-	-	1	-	-	2
Pulp & Paper	-	-	1	1	-	-	-	-	-	-	-	-	-	2
Service Stn.	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Transportation	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Wood Presery.	-	-	-	-	-	-	-	-	-	-	1	-	-	1
	2	3	2	2	1	1	-	-	-	-	6	-	-	17

Table 2 (continued)

WATER QUALITY CONTROL ORDERS (Clean Water Act)

Municipality/ Facility	1972	'73	'74	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	Total
Municipality	-	2	2	1	-	1	-	-	-	-	1	1	-	8
School Division	-	1	1	-	-	-	-	-	-	-	-	-	-	2
Mobile Home Court	1	-	-	-	-	2	-	-	-	-	-	-	-	3
Recreation	-	1	-	-	-	-	1	-	-	-	-	-	-	2
Res. Subdivision	-	-	-	-	-	-	-	-	-	1	-	-	-	1
	1	4	3	1	-	3	1	-	-	1	1	1	-	16

CHEMICAL CONTROL ORDERS (Hazardous Chemicals Act)

Chemical storage/ handling	-	-	-	-	-	-	-	-	-	-	1	-	2	3
Retail - chem. handling	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Scrap metal	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Trucking	-	-	-	-	-	-	-	1	-	-	-	-	-	1
	-	-	-	-	-	-	-	1	-	-	2	-	3	6

CHEMICAL CONTROL ORDERS (Agricultural Chemicals Act)

chemicals storage/ handling	-	-	-	-	-	-	-	-	5*	-	-	-	-	5
														5

*Note: 5 companies received the same Chemical Control Order

6	33	31	8	4	15	6	33	8	3	13	4	8	

TOTAL CONTROL ORDERS 172

period (including Control Orders and amendments); the sources that received more than two Control Orders are listed in Table 3. Approximately 25% of the facilities that received Control Orders are now shut down or have gone out of business, although it is not known whether the cost of pollution control requirements played a major role in their folding.

Control Orders are treated very seriously by recipients. Senior company executives are usually involved in the review of the pollution problem and its resolution, and millions of dollars have been spent by facilities to control the emissions in compliance with Control Orders.

The facility's response to a Control Order is always closely monitored. The time frame for compliance varies from immediate corrective action to control action that may take months or years to implement fully. In general, the more complex facilities require more time and money to meet Control Order requirements. Pollution control equipment costing several million of dollars requires detailed engineering design and specifications, as well as several months for completion, especially when it is an addition to an existing facility. The shortest feasible time is generally specified in the Control Order, with some consideration given to the above factors. It is recognized, however, that at times, despite the company's best efforts, circumstances beyond its control delay compliance with the Order. Unavailability of component parts at the manufacturer level, modifications required on the existing equipment to make it operational, and labor disputes at the equipment

TABLE 3

FACILITIES THAT WERE ISSUED
MORE THAN TWO CONTROL ORDERS*
1972 - 1984 (to date)

No. of Control Orders Issued	Pollution Source/Plant	Location
3	Tollestrup Asphalt	Calgary area
	Alberta Western Beef	Medicine Hat
	Mountain Minerals	Lethbridge
	Natal Forest Products	Coleman
	Domtar	Edmonton
4	Houg Cement	Clyde
	Burns	Edmonton
	Suncor (G.C.O.S.)	Ft. McMurray
	Northwest Pulp & Power - (St. Regis)	Hinton
5	Coleman Collieries	Coleman

*including amendments

manufacturing or installation level are just a few examples of problems that have caused delays. The individual circumstances are reviewed carefully and if warranted, an extension to Control Orders may be granted. The facility has to prove that it has undertaken reasonable diligence in meeting the requirements, and the delay was due to circumstances beyond its control. Failure to comply with a Control Order is always followed up with either a Ministerial Stop Order or with a recommendation for a prosecution. In the case of Emission Control Orders, Water Quality Control Order, non-compliance with a Control Order constitutes an offence and is liable to a fine not exceeding $25,000, and in default of payment, to a term of imprisonment not exceeding 3 months; non-compliance with Chemical Control Orders under the Agriculture Chemical Act, may result in a fine of not more than $1,000 or imprisonment for 90 days without the option of a fine, or to both fine and imprisonment; non-compliance under Chemical Control Orders, under the Hazardous Chemical Act, may result in a fine of not more than $1,000 or to imprisonment for a term not exceeding 90 days, or to both fine and imprisonment.

APPENDIX I

EMISSION CONTROL ORDER

EMISSION CONTROL ORDERS (To June 19, 1973)

ANY	LOCATION	DATE ISSUED	CONTENT	DATE FOR COMPLIANCE	STATUS
llestrup Construction . Ltd.	Beddington Pit SE-22-25-1-W5	May 11, 1972	Obtain approval for operation, control particulate matter	May 11, 1972	Complied with E.C.O.
berta Poultry rketers	Conrich	July 31/1972	Control odor	October 1, 1972	Cancelled - Too many conflicting orders
rbo Resources Ltd.	Edmonton	Dec. 11, 1972	Control odor	February 16, 1973	Complied with E.C.O
way Industries Ltd.	Woodhouse	Jan. 31,1973	Control particulate matter	April 30, 1973 February 10, 1973 (temporary)	Operation voluntarily shut down
rzari Iron Ltd.	Lethbridge	Apr. 3, 1973	Cease open burning	April 3, 1973	
.G.F. Varzari, owner National Salvage . Ltd.	Lethbridge	Apr. 3, 1973	Cease open burning	April 3, 1973	E.C.O. Violated June/1973 Reissued to National Salvage #24
untain Minerals Ltd.	Lethbridge	Apr. 26, 1973	Control particulate matter	May 4, 1973 (from stockpiles) July 31, 1973 (for plant)	Stock piles covered with polythene
ift Canada Co. Ltd.	Edmonton	Apr. 30, 1973	Control Odor	July 31, 1973	Have initiated temporary control by May 1, 1973 (see 15)

EMISSIC ONTROL ORDERS (Cont.)

MPANY	LOCATION	DATE ISSUED	CONTENT	DATE FOR COMPLIANCE	STATUS
ainer's Ltd.	Edmonton	May 8, 1973	Control Odor	August 21, 1973	Final Installation pending (see 17)
lberta Western Beef	Medicine Hat	June 5, 1973	Control Odor	October 1, 1973	Non-compliance Pros. (Jan./74)

EMISSION CONTROL ORDERS ISSUED SINCE JUNE 19, 1973

Company	Location	Date Issued	Content	Date for Compliance	Status
Burns Foods Ltd.	Edmonton	July 25/73	- apply for permit & license - control odour	Sept. 1/73 Jan. 1/74	see (8) & (18) pending file proposes start-up 2 Mar/74
B & H Wrecking Ltd.	Lethbridge	July 26/73	- cease open burning	July 26/73	Maintain Surveillance Complied
Anthes Western (Canron Calgary Ltd.)	Calgary	July 27/73	- apply for permit - apply for license - submit copy of order for particulate control equipment	Dec. 31/73 Jan. 31/74 45 days after permit granted	pending pending pending Complied
Imperial Lumber Co. Ltd.	Grande Prairie	July 27/73	- apply for permit - apply for license - control smoke and particulates	Aug. 31/73 Sept. 17/73 Dec. 10/73	? ? see #29
Swift Canadian Co. Ltd.	Edmonton	July 30/73	- submit status report on control equipment - complete installation of control equipment	Aug. 15/73 Sept. 7/73	letter dated Aug. 21/73 complied
Mountain Minerals (#7)	Lethbridge	Aug. 1/73	- extended deadline of previous order (Control Particulate Matter)	Aug. 31/73	see (9) & (12)

	Company	Location	Date Issued	Content	Date for Compliance	Status
17.	Gainer's #9	Edmonton	Aug. 21/73	- extended deadline of previous order (Control Odor)	Oct. 15/73	maintain surveill... complied . but difficulties with incinerator
18.	Burns Foods Ltd. #11	Edmonton	Sept. 1/73	- extended deadline of previous order - permit - license	Sept. 14/73 Sept. 14/73	application received for permit see (30) Sept. 14 & (50)
19.	Mountain Minerals #7 & 16	Lethbridge	Sept. 1/73	- extended deadline of previous order (Control Particulate Matter)	Nov. 30/73	- complied - slight delay check at 31/1/74 deadline being extended by letter
20.	Harper's Metals Ltd.	Red Deer	Sept. 17/73	- cease open burning until permit and license obtained	Sept. 18/73	Maintain Surveillance complied
21.	Coleman Collieries	Coleman	Oct. 10.73	- submit study of particulate controls & interim action report - submit monthly progress report and operating particulars commencing	Feb. 1/74 Oct. 31/73	pending see (32) pending
22.	Tollestrup Construction	Pioneer model 302 Portable Asphalt Plant.	Oct. 16/73	- cease operation until compliance with license 73AL033	Oct. 19/73	- continued operation authorized until Oct. 30/73 reviewing the compliance conditions - inspect after start up 7... - complied

	Company	Location	Date Issued	Content	Date for Complince	Statu
23.	Town of Leduc	Leduc	Oct. 17/73	- cease open burning	Oct. 17/73	Maintain Surveillance Complied
24.	National Salvage Co. Ltd.	Lethbridge	Oct. 19/73	- cease open burning	Oct. 19/73	Maintain Surveillance Complied Closed
25.	Canada Safeway Ltd.	Meadowlark Pk. Edmonton	Nov. 8/73	- cease operation of incinerator - apply for permit and license recommence operation only after Departmental inspection	day served Nov. 9/73	Maintain Surveillance Incinerator removed (Jan. 16/74
26.	Natal Forest Products Ltd.	Coleman	Nov. 8/73	- submit report on steps to control visible emissions - apply for permit and license - commence forwarding monthly progress reports	April 30/73 April 30/73 Nov. 30/73	pending see (41)
27.	Timberline Ranch Ltd.	Frank	Nov. 8/73	- submit report on steps to control visible emissions - apply for permit and license - commence forwarding monthly progress reports	April 30/73 April 30/74 Nov. 30/73	pending Prosecute
28.	Revelstoke Company Ltd.	Sentinel	Nov. 13/73	- submit report on steps to control visible emissions - apply for permit and license - commence forwarding monthly progress reports	April 30/74 April 30/74 Nov. 30/73	pending see (42)

	COMPANY	LOCATION	DATE ISSUED	CONTENT	DATE FOR COMPLIANCE	STATUS
29.	Imperial Lumber Co. Ltd.	Grande Prairie	Dec.10/73	-apply for license -extended deadline to control smoke and particulates -commence monthly progress reports	March 31/74 March 31/74 Dec.31/73	pending complied
30.	Burns Foods Ltd.	Edmonton	Jan.1/74	-extended deadline to control odor -extend deadline to apply for license	June 10/74 June 10/74	Maintain Surveillance see (50)
31.	W. H. Clark Lumber	Edmonton	Feb. 1/74	-Alter control equipment to control visible emissions (Smoke)	April 1/74	pending see (33)
32.	Coleman Collieries Ltd. #21	Coleman	Feb.1/74	-Extend deadline: -submit interim action report on dust control -submit long range study of particulate control	March 4/74 May 1/74	pending see (40)
33.	W. H. Clark Lumber	Edmonton	April 1/74	-extend deadline to alter control equipment	April 30/74	pending complied
34.	Alberta Western Beef Co. Ltd. replaces #10	Medicine Hat	April 5/74	-install "oxyflow" odor control system -apply for license for odor control system -apply for permit for remaining odor sources	Nov.1/74 July 1/74 July 1/74	extended see (55)

	COMPANY	LOCATION	DATE ISSUED	CONTENT	DATE FOR COMPLIANCE	STATUS
5.	Coleman Collieries Limited	Coleman	April 5/74	-apply for permit for sprinkler system -install sprinkler system -Asphalt roads -control dryer stack emissions -apply for permit for dryer stack alterations -rubber-tired bulldozer -monthly progress report commencing	May 15/74 June 30/74 July 31/74 Oct.1/74 June 1/74 May 31/74 April 30/74	complied complied extended (7417) see order 7501 revoked complied complied
6.	North Canadian Forest Industries Ltd.	Grande Prairie	April 30/74	-install smoke control equipment on teepee burner.	Sept. 1/74	complied
7.	Winterburn Planing Mill Ltd.	Edmonton	April 25/74	-advise Director on steps to control visible emissions -if burning continues, apply for permit - submit compliance schedule	June 30/74 June 30/74 June 30/74	complied & allow burning till Nov. 1 (7422)
8.	Canron Limited	Calgary	(April 23/74) May 13/74	-submit additional information for baghouse stack for permit application -Submit compliance schedule within 45 days after permit issued -revoke July 27/73 order	May 30/74	complied
9.	Coleman Collieries Limited	Coleman	May 7/74	-extend deadline of Oct. 10/73 order - submit long range study of particulate control	Aug. 1/74	revoked (covered in mine site permit)

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
40 Coleman Collieries Limited #7417	Coleman	May 13/74	-extend deadline of April 5/74 order -Asphalt roads	August 15/74	- complied
41 O'Brien Lumber Co. Ltd. #7414	High Prairie	May 15/74	-advise Director on steps to control visible emissions -if burning continues, apply for permit -submit compliance schedule	August 30/74 August 30/74 August 30/74	complied & under surveillance
42 Buchanan Lumber Ltd. #7415	High Prairie	May 15/74	-advise Director on steps to control visible emissions -if burning continues, apply for permit -submit compliance schedule	August 30/74 August 30/74 August 30/74	complied & under surveillance
43 Natal Forest Products Ltd.	Coleman	May 16/74	-cease burning wood waste until permit & license obtained	August 1/74	extended to October 1 see (52)
44 Revelstoke Co. Ltd. #7416	Sentinel	May 16/74	-apply for permit to construct -submit compliance schedule -revoke Nov. 13/73 order	August 1/74 August 1/74	complied
45 Western Co-op Fertilizers Ltd.	Calgary	June 17/74	-advise Director on steps to control NOX & particulates -submit compliance schedule	December 2/74 December 2/74	complied & under surveillance
46 Western Co-op Fertilizers Ltd.	Medicine Hat	June 17/74	-advise Director on control NO_x, particulates Fl. & SO_2 -submit compliance	December 2/74 December 2/74	complied plant shut down

	COMPANY	LOCATION	DATE ISSUED	CONTENT	DATE FOR COMPLIANCE	STATUS
47.	North Western Pulp & Power Ltd. #7410	Hinton	June 28/74	-submit report and schedule on TRS emission control and particulate control.	September 4/74	compliance and new order being drafted
48.	Inland Chemicals Canada Ltd. #7421	Fort Saskatchewan	July 23/74	-submit report on procedures and schedule of SO_2 control.	December 9/74	complied and new order being drafted
49.	Winterburn Planing Mill Ltd #7422	Winterburn	July 23/74	-cease burning wood waste till permit or licence obtained	November 1/74	complied
50.	Burns Foods Ltd. #7423	Edmonton	July 23/74	-extension to install odor control equipment and apply for licence	August 12/74	complied
51.	University Hospital #7424	Edmonton	August 7/74	- submit report on procedure and schedule of Smoke Control - if incineration continues apply for permit to modify	November 8/74 December 9/74	complied
52.	Natal Forest Products Ltd. #7425	Coleman	August 20/74	- extend deadline of order #7413	October 1/74	complied
53.	P. Burns Ranches Limited #7426	Calgary	Sept. 19/74	- procedures to control odor and schedule	October 21/74	complied and work continuing -operation shutdown
54.	Roug Cement Ltd. #7428	Clyde	Sept. 30/74	- apply for ammendments to existing approval #72-AP-048 - install stack sampling facilities and submit stack survey	October 15/74 November 15/74	complied

COMPANY	LOCATION	DATE ISSUED	CONTENT	DATE FOR COMPLIANCE	STATUS
55. Alberta Western Reef #7420	Medicine Hat	Oct. 20/74	- extend deadline to install "oxyflow" system	Dec. 16/74	complied
North Western Pulp & Power Ltd. #7502	Hinton	Mar. 13/75	- see summary of control programs in the E.C.O.	From July 31/77 to May 31/77	complied & work continuing
Inland Chemicals Canada Ltd. #7503	Ft. Sask.	Mar. 13/75	- apply for permit to construct - effluent discharge from plants 1 & 2 through a common stack 250 ft. high - 1.2 tons SO_2 per day from plant 1 5.5 tons SO_2 per day from plant 2 - progress report every 4 months commencing	Apr. 30/75 Dec. 30/75 Dec. 31/75 Apr. 30/75	complied complied complied complied
Houg Cement #7504	Clyde	Sept. 25/75	- operate less than 115 TPD til - operate less than 50 TPD after - operate within 0.2/1000 after - submit monthly report commencing	Jan. 1/76 Jan. 1/76 Jan. 1/76 Oct. 30/75	extended to Jan. 31/76 see (68)
Town of Coleman Landfill site (solid waste) #7505	Coleman	Oct. 2/75	- cease all burning at solid waste disposal ground - extinguish all fires currently burning there	immediately	

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Houg Cement	Clyde	December 30/75	Extension of Sept 25/75 E.C.O.	January 31, 1976	Complied
Davis Enterprises	Edmonton	January 26, 1976	Cease use of incinerator	Immediate	Complied
Town of Airdrie	Airdrie	June 24, 1976			Prosecution successful
G.C.O.S.	Ft. McMurray	June 25, 1976	Improve Amine Plant and control SO_2 emissions	December 31/78	Compli...
Edmonton Rendering	Edmonton	January 19, 1977	to cease storage of animal cadavers outside and to clean up existing remains	Jan 22, 1977	Complied
Steel Brothers	Exshaw	February 8, 1977	Install new $CaCO_3$ plant	June 30, 1977	Deadline extended to Aug. 22/77 see (11)
Houg Cement	Clyde	February 18/77	Req'd proper maint. & operation of cement kiln, marl dryer & sand dryer baghouses or plant to shut down.	February 19, 1977	Shutdown

COMPANY	LOCATION	DATE ISSUED	CONTENTS	DATE FOR COMPLIANCE	
Sandman Inn	Edmonton	February 24, 1977			Complied
Canada Packers	Calgary	June 23, 1977	maintain optimum operation of scrubber. Odor control program for sewage treatment plant.	effective August 3, 1977	Complied
Steel Brothers	Calgary	June 27, 1977	Amending February 8/77 Order	August 23, 1977	Complied
Alberta Processing	Calgary	July 15, 1977	Install wet scrubber monitoring requirements		Complied
Truroc Gypsum Products	Edmonton	August 23, 1977	-visible & particulate emission to be in compliance -must report precipitator malfunctions & or excessive emissions stack survey required	September 16, 1977	Complied
Hub Oil Company Ltd.	Calgary	January 6, 1978	complete odour analytical testing program of gaseous effluents	April 15, 1978	Complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Stony Plain - Parkland Landfill site	Stony Plain	March 22, 1977	- cease all burning on site - extinguish all fires currently burning - extinguish all fires that may occur	Immediately	Prosecution not successful
Ulrich Auto Sales	Blairmore	August 29, 1977	- cease burning prohibited debris (216/75) - cease burning material specified in 218/75	Immediately	Complied
Crowsnest Pass Motors	Blairmore	August 29, 1977	- cease burning prohibited debris (216/75) - cease burning material specified in 218/75	Immediately	Complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Irving Industries (foot hills steel foundry division)	Calgary	January 6, 1978	complete installation of new baghouse. submit progress reports every two weeks.	March 31, 1978	complied
McNally Contractors Ltd. & Kootenay Paving Ltd.	Lethbridge	August 23, 1978	install pollution equip.	prior to any future operation in Alberta	complied
Everall Construction (Edmonton) Ltd.	Edmonton	August 31, 1978		August 31, 1978	complied
Lawrence Meier Trucking Ltd.	Medicine Hat	September 6, 1978	-installation of New baghouse, apply for permit-to-construct Apply for licence to operate.	September 29, 1978	not completed STOP ORDER ISSUED
Sherritt Gordon Mines Limited	Fort Saskatchewan	March 28, 1979	ammonia emissions removal from the oxydrolysis unit Study Submit a tentative work schedule on removal of ammonia emissions from the oxydrolysis unit	May 1, 1979 June 1, 1979	complied complied
Sherritt Gordon Mines Limited	Fort Saskatchewan	March 28, 1979	Submit a tentative work schedule detailing actions & corresponding dates. Apply for Permit-to-Construct.	September 1, 1979 January 1, 1980	complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
BORDER PAVING LTD. 75-AL-056	RED DEER	MARCH 28, 1979	upgrade pollution control equipment conduct stack survey	prior to 1979 operation within 1st 2 wks of 1979 operation	complied complied
RAVEN CONSTRUCTION LTD. 78-AL-112	RED DEER	MARCH 28, 1979	conduct 2 stack surveys	within 1st 6 wks of 1979 operation	complied
A. LEDUC DEVELOPMENTS LTD. 78-AL-178	ALDERSYDE	MARCH 28, 1979	conduct 2 stack surveys	within 1st 6 wks of 1979 operation	complied
McNALLY CONTRACTORS LTD. 78-AL-227	LETHBRIDGE	MARCH 28, 1979	upgrade pollution control equipment conduct stack survey	prior to 1979 operation within 1st 2 wks. of 1979 operation	complied complied
TRIDALE CONSTRUCTION LTD. 78-AL-120	COALDALE	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
TRIDALE CONSTRUCTION LTD. 78-AL-186	COALDALE	MARCH 28, 1979	conduct 2 stack surveys	within 1st 6 wks. of 1979 operation	complied
TOLLESTRUP CONSTRUCTION CO.LTD. 77-AL-151	LETHBRIDGE	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
COHO PAVING LTD. 78-AL-137	PINCHER CREEK	MARCH 28, 1979	upgrade pollution control equipment conduct stack survey	prior to 1979 operation within 1st 2 wks. of 1979 operation	complied complied
CONMAC WESTERN INDUSTRIES LTD. 76-AL-209	CALGARY	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
CONMAC WESTERN INDUSTRIES LTD. 76-AL-062	CALGARY	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
NORTH EAST PAVING CO. LTD. 78-AL-140	ELK POINT	MARCH 28, 1979	conduct two stack surveys	within first 6 weeks of 1979 operation	This company went out of operation.
PETER KIEWIT SONS COMPANY OF CANADA LTD. 78-AL-114	EDMONTON	MARCH 28,1979	conduct two stack surveys	within 1st 6 wks. of 1979 operation	complied
PETER KIEWIT SONS COMPANY OF CANADA LTD. 74-AL-049	EDMONTON	MARCH 28, 1979	upgrade pollution control equipment conduct stack survey	prior to 1979 operation within 1st 2 wks. of 1979 operation	complied complied
POOLE ENGINEERING COMPANY LTD. 78-AL-170	EDMONTON	MARCH 28, 1979	upgrade pollution control equipment conduct stack survey	prior to 1979 operation within 1st 2 wks. of 1979 operation	complied complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
POOLE ENGINEERING COMPANY LTD. 78-AL-171	EDMONTON	MARCH 28, 1979	upgrade pollution control equipment conduct stack survey	prior to 1979 operation within 1st 2 wks. of 1979 operation	complied complied
PETER KIEWIT SONS COMPANY OF CANADA LTD. P-07 Plant	EDMONTON	MARCH 28, 1979	upgrade pollution control equipment conduct stack survey	prior to 1979 operation within 1st 10 days of 1979 operation	complied complied
POOLE CONSTRUCTION COMPANY LTD. 78-AL-172	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks of 1979 operation	complied
POOLE CONSTRUCTION COMPANY LTD. 78-AL-173	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
AERO ASPHALT PAVING LTD. 78-AL-136	DAWSON CREEK B.C.	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979	complied
AERO ASPHALT PAVING LTD. 78-AL-111	DAWSON CREEK B.C.	MARCH 28, 1979	upgrade pollution control equipment conduct 2 stack surveys	prior to 1979 operation within 1st 6 wks of 1979 operation	complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
ALBERTA CONCRETE PRODUCTS CO. LTD. 75-AL-045	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
ALBERTA CONCRETE PRODUCTS CO. LTD. 78-AL-134	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks of 1979 operation	complied
EVERALL CONSTRUCTION (EDMONTON) LTD. 78-AL-095	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks of 1979 operations	complied
EVERALL CONSTRUCTION (EDMONTON) LTD. 78-AL-103	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
EVERALL CONSTRUCTION (EDMONTON) LTD. 78-AL-102	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
EVERALL CONSTRUCTION (EDMONTON) LTD. 78-AL-105	EDMONTON	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
EVERALL CONSTRUCTION (EDMONTON) LTD. 78-AL-153	EDMONTON	MARCH 28, 1979	conduct stack survey upgrade pollution control equipment	within 1st 2 wks. of 1979 operations prior to 1979 operation	complied complied
WELLS CONSTRUCTION LTD. 77-AL-152	LETHBRIDGE	MARCH 28, 1979	conduct stack survey	within 1st 3 wks. of 1979 operation	complied
PETER KIEWIT SONS COMPANY OF CANADA LTD. P-1 plant	EDMONTON	JUNE 15, 1979	operate venturi scrubbing system conduct stack survey	June 15, 1979 within 2 wks after service of order	complied complied
CITY PACKERS LTD.	LETHBRIDGE	JULY 16, 1979	submit a report detailing item #5 in E.C.O. pg.2.	July 24, 1979	complied
Uniroyal Chemical Ltd.	Cloverbar	May 1, 1980	-Eliminate odor sources -Progress Report -Tests	Staged June 1980 - Jan 1981	complied
Lethbridge Rendering	Lethbridge area	May 14, 1980	-Repair of facility -Upgrade operations	Immediate June 13, 1980	complied
Sovereign Castings Ltd.	Calgary	October 15, 1980	-Install control equipment -Report	July 1, 1981	New Order Issued see 114
Lawrence Meier Trucking	Medicine Hat	January 6, 1981	-Install control equipment	Before operations commence	complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Sovereign Castings Ltd.	Calgary	November 13, 1981	- install control equipment - report	February 1, 1982	Complied.
Domtar Inc.	Cochrane	April 7, 1982	- install control equipment - modify operations - conduct source emission surveys - report	Various dates--last of which is April 1, 1983.	Complied.
Domtar Inc.	Edmonton	April 7, 1982	- install control equipment - modify operations - conduct source emission surveys - report	Various dates--last of which is April 1, 1983.	Complied.
Western Decalta Petroleum (1977) Ltd.	Turner Valley	April 7, 1982	- design testing program - carry out program - submit program for compliance - report	Various dates--last of which is July 1, 1982.	Complied.
Domtar Inc.	Edmonton	August 25, 1982	- extension of April 7, 1982 Order	- extended emission survey date from August 1, 1982 to Sept. 11, 1982.	Complied.
Domtar Inc.	Cochrane	January, 1983	- extension of April 7, 1982 Order	- deadline extended from April 1, 1983 to June 30, 1983.	Complied

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Domtar Inc.	Edmonton	March 8, 1983	Extension of April 7, 1982 order.	Extended April 1, 1983 deadline to Sept. 1, 1983.	Complied
Cypress Alfalfa	Medicine Hat	July 24, 1984	- reduce production rates - modify dust control equipment to reduce emissions by October 15, 1984 - submit status report on bi-monthly basis - written report as to plant's steps to avoid overheating of feed material is due	October 15, 1984	Baghouse not delivered on time due to supplier problems. Other conditions complied with.
Suncor Inc.	Ft. McMurray	August 2, 1984	- requiring implementation of plant modifications - must comply with emission level specified by variance - report on and implementation of maintenance program	Maintenance schedule required by September 14, 1984. Compliance to be achieved by December 31, 1985.	Report received. Progress being monitored.
Premier Resources	Forestburg	September 7, 1984	- modify present equipment to minimize H_2S release from flare stack and other sources at plant. - submit report with details of corrective action to be taken. - plant must be manned on 24 hr. basis upon receipt of ECO	October 12, 1984	Complied with due items. Further progress being monitored.

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
K & K Foodliners	Edmonton	August 9, 1984	- refrain from emitting air contaminants by stopping to burn in incinerator.	Upon receipt.	Complied with.
Diamond P. Arabians	Edmonton	September 26, 1983	- refrain from burning horse manure.	Upon receipt.	Stop order issued. Complied.
Cypress Alfalfa amendment	Medicine Hat	October 19, 1984	- install baghouse for dust control by November 30, 1984.	November 30, 1984	

APPENDIX II

WATER QUALITY CONTROL ORDER

WATER QUALITY CONTROL ORDERS

COMPANY	LOCATION	DATE ISSUED	CONTENT	COMPLIANCE DATE	STATUS
ELL CANADA LIMITED S PLANT	Innisfail	July 12, 1972	Discharge of waste water contrary to approval	Immediately	Complied with order
LANESE CANADA LIMITED	Two Hills	Sept. 7, 1972	Discharge of off spec. plant products and wash water from vessels and tanks w/o an approval.	Immediately	Complied with order
J. CONRAD	Bear Canyon	April 26, 1973	Discharge of piggery waste to Killum Creek	June 30, 1973	Complied with order
CHEM LIMITED	Edmonton	May 14, 1973	Discharge of ponded waste water to North Saskatchewan River	May 16, 1973	Complied with order
INE FUR FARMS LTD.	South Edmonton	July 13, 1973	Discharge of ponded waste water to Blackmud Creek	August 13, 1973	Company out of business
RTH WESTERN PULP & POWER MITED	Hinton	June 26, 1974	Assess toxicity of waste effluent	Oct. 31, 1974	Complied with order
			Render effluent non-toxic	June 30, 1976	Complied with order
INTYRE PORCUPINE MINES MITED	Grande Cache	August 16, 1974	Control waste water to meet licence requirements	Dec. 31, 1976	
RTH WESTERN PULP & POWER	Hinton	March 12, 1975	Confirmation of schedule of of various modifications		Complied with.
NADIAN NATIONAL RAILWAY	Hinton	June 5, 1975	Stop discharge to Brule L. Remove "Railway Right-of-Way S re potash & soil D pose potash & soil	June 13, 1975 " " " " " " July 11, 1975	Clean-up completed.

WATER QUALITY CONTROL ORDERS

COMPANY	LOCATION	DATE ISSUED	CONTENTS	COMPLIANCE DATE	STATUS
GREAT CANADIAN OIL SANDS LIMITED	Fort McMurray	Aug. 18, 1976	Construction of facilities to collect drainage water, seepage water, etc.	Sept. 15, 1976	Facilities complete and in operation.
			Submit report describing alternative facilities	Sept. 30, 1976	Complied with.
CARDINAL RIVER COALS LTD.	Hinton	Sept. 14, 1977	Surface runoff ponds, slurry ponds, lower Luscar Creek settling pond	Dec. 15, 1977	Complied with.

WATER QUALITY CONTROL ORDERS

COMPANY	LOCATION	DATE ISSUED	CONTENTS	COMPLIANCE DATE	STAT.
SERVICE STATIONS: Imperial Oil Petro-Canada Shell Canada	Sherwood Park	Feb. 25. 1982	Undertake soil & underground investigation. Submit progress reports weekly. Final report on ----------	Apr. 15, 1982	Complied with.
SUNCOR INC.	Fort McMurray	Feb. 26, 1982 (to Calgary)	Cleanup water contaminants Undertake dredging	Mar. 31, 1982	Complied with.
DOMTAR, INC.	Cochrane	Apr. 8, 1982	Contaminant entering underground freshwater; monthly progress reports.		Complied with.
WESTERN DECALTA PETROLEUM	Turner Valley	Apr. 21, 1982	Water contaminants released Monthly reports up to ----	July 30, 1982	Complied with.
CARDINAL RIVER COALS LTD.	Hinton	Apr. 27, 1982	Contaminants in underground mine waste water. Report by	May 17, 1982	Complied with.
SOUTHSTAR PROPERTIES LTD.	Edm/Sherwood Park	June 29, 1982	Contaminants in Prof. Bldg. sump. Install 2 new sumps & provide results of inspection of weeping tile by-	Aug. 31, 1982	Complied with.

WATER QUALITY CONTROL ORDERS

	COMPANY	LOCATION	DATE ISSUED	COMMENTS	COMPLIANCE DATE	STATUS
1.	Inland Gravel Ltd.	S.E. 5-54-23-4 Edmonton	June 16, 1977	Discharge of water from the plant to the system	August 12, 1977	Did not comply, went to trial
2.	Scandia Water Users	Scandia	July 15, 1983	Unsatisfactory microbiological quality of water supply	Immediately	Complied
3.	Power Farms Ltd.	M.D. Rockyview #44	July 20, 1981	Unsatisfactory sewage collection treatment and discharge	July 24, 1981	Complied
4.	Suncrest Mobile Estates Ltd.	SE 18-12-5-4 Medicine Hat	March 11, 1977	Seepage through berms of wastewater treatment plant	April 4, 1977 repairs June 15, 1977 replace	complied
5.	Town of Carstairs	Carstairs	February 7, 1977	Irregular discharge of municipal effluent	Immediately	Complied
6.	Town of Irvine	Irvine	April 21, 1977	Discharge of wastewater polluting groundwater	Immediately	Complied
7.	Town of Coleman	Coleman	Sept. 3, 1974	Provide disinfection of water supply	Immediately	Complied
8.	Gold Creek Water	Frank	Sept. 3, 1974	Unsatisfactory bacteriological and colloidal water quality	November 1, 1974	Complied
9.	Northlands School Division #61	Peace River	May 9, 1974	Discharge of lagoon effluent into Gift Lake	Immediately	Complied
10.	Terrace Corp. (Construction) Ltd.	Lake Eden	August 7, 1973	Unauthorized discharge of lagoon effluent into water course	Immediately	Complied
11.	Town of Okotoks	Okotoks	July 11, 1973	Unsatisfactory effluent quality discharge to Sheep River	April 1, 1972	Complied

WATER QUALITY CONTROL ORDERS

	COMPANY	LOCATION	DATE ISSUED	COMMENTS	COMPLIANCE DATE	STATUS
12.	Town of Bruderheim	Bruderheim	April 25, 1973	Unauthorized discharge of lagoon effluent to water course	November 1, 1973	Complied
13.	Sturgeon MD #90 School Division	Morinville	April 18, 1973	Unauthorized discharge of lagoon effluent to water course	Immediately	Complied
14.	North End Trailer Court	Rocky Mtn House	Novmber 29, 1972	Unauthorized discharge of effluent to water course	Immediately	Complied
15.	Town of Magrath	Magrath	Sept. 1, 1982	Repair lift station		Complied
16.	Pinebrook Estates	M.D. Rocky-view #44	July 20, 1981	Unauthorized wastewater discharge	July 24, 1981	
			April 11, 1983	Inadequate water supply, treatment and distribution	May 16, 1983	Complied
			June 24, 1983	Amendment to order		
17.	Village of Bawlf	Bawlf	July 11, 1983	Bacteriological monitoring	August 1, 1983	Complied
18.	Happy Valley	M.D. Rocky-view #44	Sept 5, 1978	Septic tank discharge to Bow River		Complied

APPENDIX III

CHEMICAL CONTROL ORDER

CONTROL ORDERS (HAZARDOUS CHEMICALS ACT)

COMPANY	LOCATION	DATE ISSUED	COMMENTS	DATE FOR COMPLIANCE	STATUS
Schoeller Trucking Ltd.	Edmonton	Oct. 3, 1979	- Clean up spill site, ensure proper disposal of sulphur and restore spill site.	Oct. 17, 1979	Complied
C. Hesion	Calgary	May 26, 1982	- Clean up PCB contaminated site. - Refrain from handling contaminated equipment.	June 10, 1982	Complied
J. Kunzli	Calgary	Sep. 30, 1982	- Clean up oil and waste chemical disposal pit.	Oct. 21, 1982	Complied
Princess Auto	Edmonton	Jan. 6, 1984	- Remove all leaking capacitors and store them securely. - Clean shelving units of all PCB's.	Jan. 16, 1984	Complied
Terraco Oil Field Services Ltd.	Red Deer	Feb. 20, 1984	- Immediately contain chemicals and contaminated water. - Outline methods used for containment and recovery.	June 1, 1984	Complied
D&D Group 262128 Alberta Ltd.	Leduc	Sep. 28, 1984	- Stop bringing PCB's to Nisku facility. - Upgrade facilities to meet minimum requirements for secure storage of PCB's.	Nov. 30, 1984	

COMPANY	LOCATION	DATE ISSUED	CONTENTS	DATE FOR COMPLIANCE	STATUS
Green Cross Products	Lethbridge	July 30, 1981	-stop discharge of chemicals -remove and secure chemicals -dispose of any contaminated materials	immediately	complied
Green Acres Fertilizer Services Ltd.	Lethbridge	July 30, 1981	"	immediately	complied
Chipman Inc.	Lethbridge	July 30, 1981	"	immediately	complied
Cargill Grain Company Ltd.	Lethbridge	July 30, 1981	"	immediately	complied
Owen Distributing Limited	Lethbridge	July 30, 1981	"	immediately	complied
*NOTE: All 5 companies were served identical Chemical Control Orders as a result of a warehouse fire.					

ENVIRONMENTAL ENFORCEMENT PROGRAM

Stop Order

Pollution Control Division
Alberta Environment
November 1984

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Environmental Management Program

Stop Order

The Stop Order is the highest level of the enforcement hierarchy and is the strongest measure used in the enforcement program. As with any of the other procedures discussed above, it can be initiated at any time, and does not have to follow a Control Order.

The Stop Order is a legal document issued by the Minister of the Environment, pursuant to the Environment Act (Section 17); the Clean Air Act (Section 14); and the Clean Water Act (Section 15).

The Minister may issue a Stop Order when a person (facility):

a) has contravened, or is contravening one of the above Acts, or regulations or orders under the Acts; or
b) in the opinion of the Minister, is causing or is likely to cause the destruction, damage or pollution of a natural resource (i.e. land, plant life, animal life, water and air, including human life and property).

In a Stop Order, the Minister may require that the facility cease the contravention specified in the Order and stop any operation or shut-down or stop the operation of any plant, equipment or structure, either permanently or for a specified period. If the Stop Order is not complied with the Minister may apply to the Court

of the Queen's Bench for a court order directing compliance with the order. If the court order continues to be contravened, an officer of the Division may enter on any land and do any acts that are necessary to carry out the Stop Order. In addition, the Minister may recover any expenses incurred in carrying out the Stop Order.

Under the Environment Act, non-compliance with a Stop Order is an offense which carries a fine of not more than $10,000 for each day that the offense continues, or a term of imprisonment of not more than 12 months, or both the fine and the imprisonment. The fine under The Clean Air and Water Acts for non-compliance with a Stop Order is $50,000 for each day.

The Division has issued four Stop Orders since 1972 (Table I) for non-compliance with a previous order or constructing without the necessary approval.

A summary of each Stop Order is provided in the appendix.

TABLE I

Summary of Stop Orders

Facility	Location	Date Issued	Comments	Date for Compliance	Status
Burnco Industries	Bow River, Calgary	June 6, 1973	- Construction of a berm adjacent to Bow River without approval	cease construction immediately	- complied with
Evergreen Mobile Park	N.E. of Edmonton	April 8, 1976	- contravening Clean Water Act. - operating a waterworks system and a sewerage project without approval	cease immediately	- order rescinded
Lawrence Meier Trucking	Medicine Hat	June 20, 1979	- operated without adequate pollution control - operated without licence	October 1, 1979 (from ECA hearing)	- complied with
Diamond P. Arabians Ltd.	Edmonton	October 4, 1983	- opening burning horse manure	cease immediately	- complied with

Appendix

Details of Stop Orders

Burnco Industries Limited - June 7, 1973

Burnco Industries Limited started to operate a gravel mine on the flood-way in Calgary without the necessary approvals required by the Water Resources Act.

A private complaint to the Division on June 5, 1973 raised questions about the operation. On June 7, 1973 Division staff inspected the site on the Bow River in Calgary (Pt. N.E. 23-23-1-W5) and observed the following:

1. Approximately 5 to 10 acres of land within the flood plain and flood-way of the Bow River had been stripped of overburden.
2. The overburden material had been used to form a dyke about 5 ft. high, adjacent to the river about 20 to 30 ft. from the river's edge.
3. The river bank is only about 2 ft. high in this reach of the river.
4. It did not appear that any trees had been destroyed, however the overburden material had been placed between the trees.

Burnco had apparently proceeded with the operation after receiving legal advice from their solicitor, without the necessary permits pursuant to Section 11 of the Water Resources Act.

On June 6, 1973, a Stop Order (under Department of Environment Act) and a Ministerial Order (under Water Resources Act) were issued to Burnco Industries ordering the following:

1. All work, removal, disturbance or otherwise of the bed, shore and banks of the Bow River at the location described above be curtailed forthwith; and
2. Such work continue to be stayed until further notice to Burnco Industries Limited;
3. Burnco Industries Limited refrain from further activity at the above location until and at such time as a permit for such work is issued pursuant to Section 11 of The Water Resources Act; and
4. The terms of this direction and order shall be complied with by the said Burnco Industries Limited, its agents, assigns and any other person contracting with Burnco Industries Limited for the performance of such work.

Burnco complied with the order and obtained the necessary permits to properly operate a gravel mine in this location.

Evergreen Mobile Home Park - Prosecution

A Cease Construction Order was issued on November 6, 1975, ordering the owner of Evergreen Mobile Home Park to cease construction of water and sewer services without a permit. When the

owner did not comply, charges were laid in December 1975 and a trial was set for March 1976. The charges were dismissed.

A Water Quality Control Order was issued in June 1977 to upgrade the drinking water quality to Canadian Drinking Water Standards. The trailer court failed to comply and charges were laid. A plea of not guilty was entered, and after several delays in proceeding to trial, the charges were stayed.

Lawrence Meier Trucking Ltd.

Since 1974, Lawrence Meier Trucking has received one Stop Order, one Emission Control Order and has been prosecuted twice for operating without a licence under the Clean Air Act. Between November 4, 1974 and June 28, 1978 the Company received 10 letters regarding applying for a licence or a deficiency in the licence application.

In the spring of 1976, the Company was charged with operating without a licence. They pleaded guilty and were fined $25.00.

Following further correspondence, a deficient licence application and the Company failing to install the necessary air pollution control equipment, an Emission Control Order was issued to the Company in September 1978.

In November 1978, the Company was once again charged with operating without a licence. They pleaded guilty and were fined $100.00.

A Stop Order was issued on June 20, 1979, because Lawrence Meier Trucking commenced operation without adequate pollution control equipment and still did not possess a licence.

Lawrence Meier Trucking ceased operation immediately and appealed to the Minister. The Environment Council of Alberta, after holding an inquiry into the issue, ordered the Company to install the pollution control equipment by November 30, 1979.

The Environment Council of Alberta recommended that a Certificate of Variance be issued to the Company to allow them to operate in the interim without pollution control equipment. The Minister followed this recommendation.

Diamond P. Arabians

In March 1978 Alberta Environment received the first complaint about Diamond P. Arabians regarding manure burning. After several meetings and letters the problems were resolved in October that year.

In September 1983, the Department, once again, received complaints about manure burning. Since the owner refused to extinguish the fire, an Emission Control Order was issued on September 26, 1983.

On October 4, 1983 a Stop Order was issued because the owner disregarded the Emission Control Order and Alberta Environment was continuing to receive complaints. The owner complied with the Stop Order and ceased the burning activities.

ENVIRONMENTAL ENFORCEMENT PROGRAM

"PROSECUTION REVIEW"

NOVEMBER, 1984

Pollution Control Division
Alberta Environment

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Introduction

Alberta's Department of Environment is charged with the responsibility of balancing resource and industrial development with environmental protection. The Division of Pollution Control's response to this challenge is evident in its enforcement program and the philosophy behind it.

The basic premise at the core of the program is that the most effective way to protect the environment is to foster mutual trust and understanding between the government, the industry and the public. Under certain circumstances the Division has to take more severe measures to enforcement: when a facility does not respond to Division demands; when a company, through its operations, does not comply with the legal requirements; or when environmental indicators show unacceptable levels of performance. The Division has developed a comprehensive, multifaceted enforcement policy to deal with such circumstances.

Enforcement Policy

When a contravention of the applicable legislation comes to the attention of the Division, the first step is, invariably, to communicate with the offending facility, either by letter or in person, (by inspection). The facility, after being informed of the need for corrective action is given every opportunity to co-operate and comply with the Division's requirements. The time frame for such dialogues can span from months to years, depending on the complexity of the problem, equipment needs, availability of control equipment, etc. More often than not, the problems are corrected promptly and no further action on the part

of the government is required, as can be seen by the Department's prosecution rate of 6.21 charges average per year.

In some cases, however, it becomes apparent that the facility is unwilling to co-operate. Then the Department can use several options.

A Directive to the offending facility may be issued. It would indicate the problem, the course of action the company should take, and the time for implementation. Directives are used when there is only little immediate danger to the public or the environment.

A Control Order is a legal document with stronger enforcement authority. It places strict time restraints on the company and requires specific action. Failure to comply with a Control Order leads either to a Stop Order or prosecution.

Stop Orders are issued by the Minister of Environment. They carry the most weight and their effect is immediate, since the facility has to stop its operation right away.

Prosecution can be initiated, nothwithstanding whether any other enforcement measures have already taken place. In cases of constant contravention or when the Department may have reason to believe that the offending facility is not prepared to comply with the Department's requirements, or if the facility deliberately pollutes the environment, negotiations may be limited and prosecution is almost immediate.

When the Division decides to prosecute, the relevant information is presented to the Attorney General's Department where, after a review, and it is there the final decision to lay charges is made.

Summary of Prosecution - 1972 - 1984

Since the Division's formation in 1972 a total of 96 charges have been laid. Of these, 53 (55%) resulted in convictions and 43 (45%) were dismissed or withdrawn. Appendix I provides a summary of the charges and Appendix II provides the details regarding each charge.

Success rates of the individual Acts and Regulations were as follows (see Table 1): Clean Air Act, 62%; Agricultural Chemicals Act, 55%; Clean Water Act, 39%; Water Resources Act, 50% and Groundwater Control Act, 86%.

Of the 43 charges that were dismissed or withdrawn, 13 were dismissed by the Court upon presentation of evidence. The other 30 were withdrawn for a variety of reasons, including the cessation of operations by the offender. Others were withdrawn as a result of plea bargaining, the practice whereby the Crown agrees to drop a charge in return for a guilty plea on another, usually less serious charge. The procedure saves the Crown the time and expense of having to take the case to trial and still provides a deterrent for the company charged.

Environmental prosecutions fall under five areas of legislation. Guilty pleas' and convictions, resulted in fines ranging from probation or a token fine of $1.00, to a high of $7,500.00. The most common fines have been between $50.00 and $100.00.

The charges laid can be divided into four major categories according to the type of violation (see Table 2): 40% (36 charges) were related to failure to obtain an operating licence or a permit; 20% (18 charges) - for contravention of a condition of the licence; 22% (20 charges) - for failure to comply with a Control Order, Stop Order or other Ministerial Order; and 6% (6 charges) - for failure to comply with

TABLE 1
PROSECUTION SUMMARY

LEGISLATION	CHARGES LAID	CONVICTIONS/ GUILTY PLEAS	DISMISSED/ WITHDRAWN	FINE TOTAL ($)	FINE AVERAGE ($)	FINE HIGHEST	FINE LOWEST
Clean Air Act and Regulations	42	26	17	21,500	897	7,500	probation
Agricultural Chemicals Act and Regulations	11	6	5	950	158	500	50
Clean Water Act and Regulations	24	9	14	5,400	600	1,500	200
SUBTOTAL:	77	41	36				
Environmental Protection Services							
Water Resources Act and Regulations	12	6	6	826	138	300	1
Groundwater Control Act and Regulations	7	6	1	345	57	200	10
SUBTOTAL:	19	12	7				
Environmental Engineering & Support Services							
TOTAL	96	53	43				

TABLE 2
VIOLATIONS BREAKDOWN

	Environmental Protection Services		Environmental Engineering & Support Services	
1. Failure to obtain a licence or permit		28		11
(a) operating without a licence	10		6	
(b) applying pesticides w/o permit	5			
(c) open burning w/o permit	5			
(d) drilling waterwell w/o permit	1			
(e) operating incinerator w/o permit	1			
(f) constructing/operating unauthorized waterworks	6		5	
2. Contravention of a term or condition of a licence or permit		28		1
(a) contravention of licence	17		1	
(b) failure to conduct required surveys	3			
3. Failure to report uncontrolled emission/release	8			
4. Failure to comply with Ministerial Order		13		4
5. Applying a pesticide improperly		4		
6. Unlawfully diverting a watersystem				3
7. Contaminating a waterway		4		
TOTAL		77		19

regulations. The remaining 12% of the charges were for specific violations of provincial legislation.

Table 3 and Figure 1 outline the number of prosecutions undertaken by the Division by year, since its formation in 1972. Although they indicate the years in which the prosecutions took place, the actual investigations may have begun sometime before. The delays occur when the Division deals with contraventions which are against the Department's regulations but which do not directly threaten the environment. Most charges of failing to obtain an operating permit or licence, or failing to submit yearly reports fall into this group. There is more time for negotiations in these cases and it may take several months before prosecution is necessary. But when dealing with contraventions whose effect on the environment is of immediate concern, prosecution occurs almost immediately, and negotiation is minimal. Uncontrolled or excessive emissions account for most of this group.

The large vast majority of cases that went to prosecution were successful from the environmental point of view. Thanks to the diligence on the part of the government, pollution control devices are installed where necessary, practices causing pollution cease and licences-to-operate are obtained. The Division is of the opinion that the compliance record is more important than the number of successful prosecutions undertaken or the amount of money collected through hefty fines; prosecution is but another necessary and effective tool in its Environmental Enforcement Program.

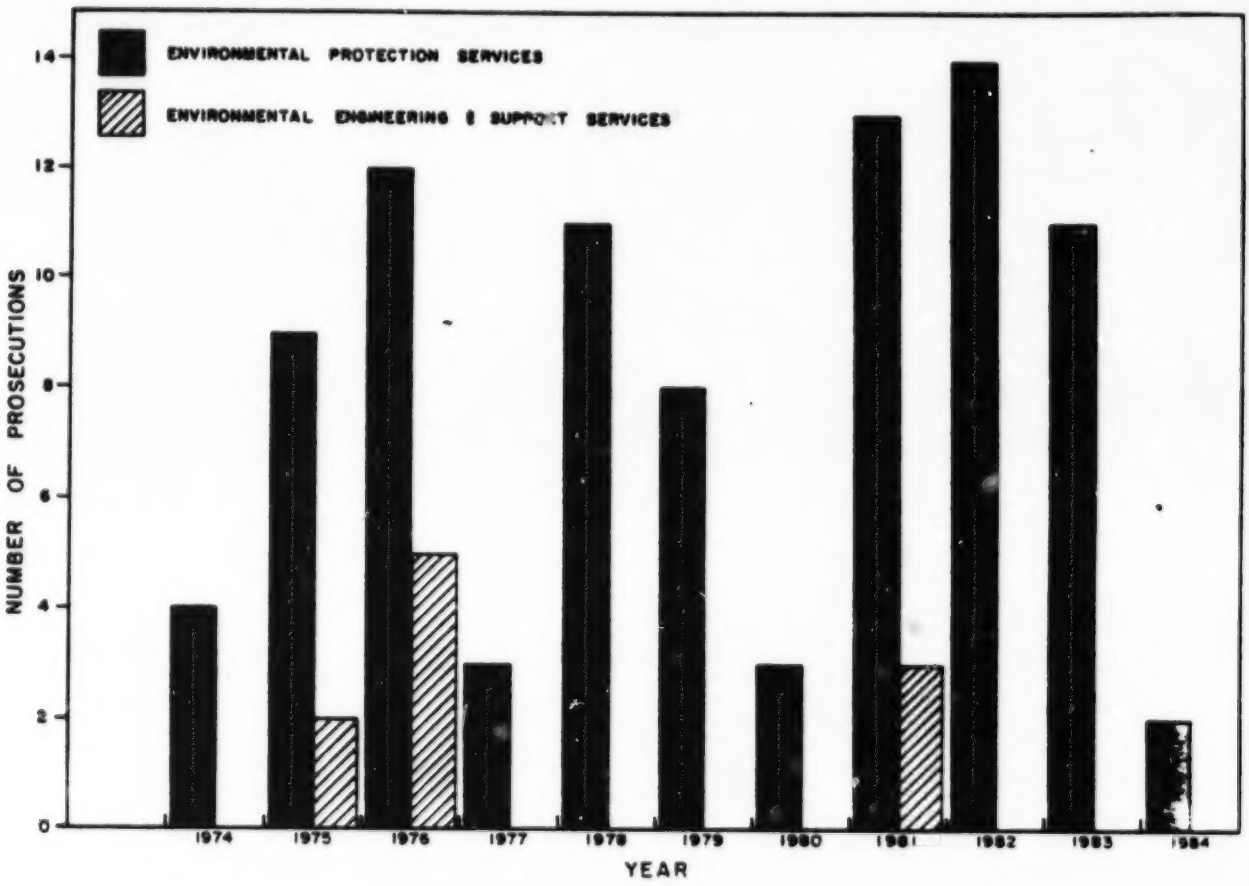
TABLE 3
PROSECUTIONS BY YEAR

Act and/or Regulations	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Clean Air Act		2	4	7	3	4	3		2	7	10	2 *
Agricultural Chemicals Act		1				1			9			
Clean Water Act		1	5	1		5	2	1	2	5	1	
Water Resources Act			2	5					3	2		
Groundwater Control Act						2	3	2				
TOTALS/YEAR		4	11	13	3	12	8	3	16	14	11	2 *

* To October, 1984

FIGURE 1

PROSECUTION COMPARISON



APPENDIX I

DEPARTMENT OF ENVIRONMENT

PROSECUTION SUMMARY

APPENDIX I

Defendant	Legislation	Year	Number of Charges	Basis of Charges	Outcome	Fine	Negotiations	Repeat
Timberline Ranch Ltd.	Clean Air Act	1974	1	operating without a licence	pleaded guilty	$ 25.00	extensive	
Peter Kiewitt	Clean Air Act	1975	4	licence violations regarding excessive emissions	pleaded guilty to 2 charges 2 charges withdrawn	2,000.00 200.00	some	yes
	Clean Air Act	1979	1	contravening a licensing condition	pleaded guilty	50.00	none	
Lawrence Meier Trucking Ltd.	Clean Air Act	1976	1	operating without a licence	pleaded guilty	25.00	some	yes
	Clean Air Act	1978	1	operating without a licence	pleaded guilty	100.00	some	
National Salvage	Clean Air Act	1976	1	failing to comply with Emissions Control Order	pleaded guilty	500.00	extensive	
Great Canadian Oil Sands	Clean Air Act	1976	5	contravening a licence condition (5 counts)	dismissed/ appealed/ dismissed		some	
Town of Airdrie	Clean Air Act	1977	1	failing to comply with Emissions Control Order	pleaded guilty	1,500.00	some	
Town of Stony Plain/ County of Parkland	Clean Air Act	1977	1	failing to comply with Emissions Control Order	dismissed appealed dismissed		some	
Houg Cement Ltd.	Clean Air Act	1977	1	failing to comply with Emissions Control Order	pleaded guilty	probation	extensive	
Kootenay Paving	Clean Air Act	1978	1	operating without a licence	pleaded guilty	500.00	none	
Everall Construction	Clean Air Act	1978	2	contravening a licence condition	convicted	200.00 200.00	some	

Defendant	Legislation	Year	Number of Charges	Basis of Charges	Outcome	Fine	Negotiations	Repeat
Canadian Pacific Railway	Clean Air Act	1979	2	open burning without a permit	convicted	500.00 500.00	extensive	yes
	Clean Air Act	1981-83	1	open burning without a permit	dismissed appealed convicted	500.00	some	
Aquitane	Clean Air Act	1981	2	failing to report an uncontrolled emission - 24 hour & 72 hour	pleaded guilty	500.00 500.00	none	
Celanese Canada	Clean Air Act	1982	2	failing to report an uncontrolled emission - 24 hour & 72 hour	dismissed		none	
Rorison Enterprises	Clean Air Act	1982	1	operating without a licence	convicted	1,000.00	none	yes
	Clean Air Act	1983	1	operating without a licence	convicted	7,500.00	none	
Midvalley Const.	Clean Air Act	1982	1	operating without a licence	pleaded guilty	1,000.00	none	
Titan Foundries	Clean Air Act	1982	3	failing to comply with a term of its licence	pleaded guilty	1,500.00	some	
				failing to report within 24 hours	pleaded guilty	500.00		
				failing to report within 72 hours	withdrawn			
A & B Rail Contractors	Clean Air Act	1983	1	burning (railroad ties) without a permit	pleaded guilty	100.00	none	
Cando Contracting/ Petmond Contracting	Clean Air Act	1983	1	burning without a permit	pleaded guilty	100.00	none	
Mayer Metals	Clean Air Act	1983	2	operating an incinerator without a permit	pleaded guilty	750.00	some	
				contravening a term of licence	withdrawn			

Defendant	Legislation	Year	Number of Charges	Basis of Charges	Outcome	Fine	Negotiations	Repeat
Columbia Blacktop	Clean Air Act	1983	1	operating without a licence	pleaded guilty	800.00	some	
Casa Dome Manufacturing	Clean Air Act	1983	1	contravening a term of the licence	withdrawn			
Speiss Construction	Clean Air Act	1983	2	contravening a term of the licence (2 counts)	pleaded guilty	500.00 500.00	some	
Batra Construction	Clean Air Act	1984	1	failing to conduct stack surveys	withdrawn		some	
Earl Balderson	Ag Chem Act	1974	1	operating without a licence	dismissed			
Bryan Rauquest/ Hand Hill Air Spray	Ag Chem Act	1978	1	operating without a licence	pleaded guilty	50.00		
Foothills School Division	Ag Chem Act	1981	3	spraying a pesticide not registered for urban use using a chemical likely to affect the health of others (2 counts)	pleaded guilty withdrawn	50.00		
Evergreen Erosion Control	Ag Chem Act	1981	6	applying a pesticide without a permit (5 counts) applying a pesticide near a body of water	pleaded guilty to 4 2 withdrawn	100.00 100.00 100.00 100.00	some	
Imperial Oil	Clean Water Act	1974	1	allowing a deleterious substance into a waterway	dismissed		some	
Amoco Petroleum	Clean Water Act	1975	2	allowing a deleterious substance into a waterway (2 counts)	pleaded guilty	200.00 200.00	some	

Defendant	Legislation	Year	Number of Charges	Basis of Charges	Outcome	Fine	Negotiations	Repeat
Trimac	Clean Water Act	1975	1	allowing a deleterious substance into a waterway	pleaded guilty	500.00	some	
Evergreen Mobile Home Park	Clean Water Act	1975	1	constructing a waterworks without a permit	dismissed		extensive	
			1	failing to comply with a Stop Order	withdrawn			
	Clean Water Act	1978	1	operating a water facility without a permit	withdrawn			
Happy Valley Recreation	Clean Water Act	1978	4	failing to comply with a Control Order (4 counts)	withdrawn		extensive	
Colonnade Management	Clean Water Act	1980	1	failing to comply with an Order	pleaded guilty	500.00	extensive	yes
Power Farms/ Pinebrook Estates	Clean Water Act	1982	2	operating without a licence	pleaded guilty	250.00	some	yes
				failing to comply with a Ministerial Order	pleaded guilty	1,250.00		
	Clean Water Act	1983	1	failing to comply with a Ministerial Order	pleaded guilty	1,500.00	some	
Hilltop Estates	Clean Water Act	1981	2	failing to comply with a Ministerial Order	dismissed		extensive	
Pine Shadow Trailer park	Clean Water Act	1982	1	failing to comply with an Order	pleaded guilty	500.00		
Suncor	Clean Water Act	1982	2	exceeding effluent release limits	dismissed			
				failing to report an uncontrolled release within 24 hours	convicted	500.00	extensive	

Defendant	Legislation	Year	Number of Charges	Basis of Charges	Outcome	Fine	Negotiations	Repeat
Palmer Ranch/ Morris Palmer	Water Res. Act	1975	2	unlawfully diverting water	dismissed			
Big Lake- Tottrup/Day	Water Res. Act	1976	3	unlawfully constructing a waterworks (2) diverting water without authority	withdrawn			
Gallelli Brothers	Water Res. Act	1976	2	failing to comply with a Ministerial Order (2)	convicted	100.00 100.00	extensive	
Armstrong/Jorgenson	Water Res. Act	1981	2	constructing an unauthorized waterworks (2 counts)	pleaded guilty withdrawn	25.00	extensive	
Faireye Construction	Water Res. Act	1981	1	failure to comply with an Order	pleaded guilty	1.00	extensive	
Doug Johnson	Water Res. Act	1982	2	using a waterworks without authority failing to comply with an Order	convicted convicted	300.00 300.00	some	
Garrity & Baker Drilling	Groundwater Control Act	1980	1	operating without a licence	pleaded guilty	200.00	none	
Deans Water Well Drilling	Groundwater Control Act	1978	2	operating without a licence operating a drilling rig without a licence	pleaded guilty withdrawn	25.00	none	
W & G Water Well Drilling	Groundwater Control Act	1979	1	contravening a term of the licence	pleaded guilty	25.00	none	
Wally Scott	Groundwater Control Act	1979	2	operating without a licence (2 counts)	pleaded guilty pleaded guilty	10.00 25.00	none	
Calnor Drilling	Groundwater Control Act	1980	1	operating without a licence.	pleaded guilty	60.00	none	

APPENDIX II

DEPARTMENT OF ENVIRONMENT

PROSECUTION DETAILS

APPENDIX II

PROSECUTION DETAILS

Clean Air Act

Timberline Ranch Ltd. - 1974

In the early 1970's, Timberline Ranch Ltd. owned and operated a sawmill near Frank, Alberta without a licence, and at various times, visible emissions from the plant appeared to exceed acceptable limits as prescribed by the Clean Air Act and its accompanying Regulations. Several inspections of the mill were made by Division officials of the Pollution Control Division and negotiations with the owners regarding the upgrading of pollution control devices were carried on throughout the summer of 1973.

On November 8, 1973, an Emissions Control Order was issued against the mill. The company was ordered to submit monthly emission reports to the Division so that emissions could be monitored. For the next few months the Division corresponded regularly with the owners in order to obtain these reports, however, they were not forthcoming. Throughout this time, the owners were also asked to apply for a licence-to-operate.

A charge of operating an industrial plant without a licence was eventually laid against Timberline Ranch Ltd. in September, 1974. The owners pleaded guilty and were fined $25.00.

Peter Kiewitt - 1975, 1979

In the summer of 1975, a routine inspection of an asphalt plant revealed several violations of the terms and conditions of the company's licence-to-operate, resulting in four charges being laid against the company.

Trial was set for June 2, at which time the company pleaded guilty to two of the charges and the remaining two charges were withdrawn by the Crown. The judge fined the company $2,000.00 for one charge and $200.00 for the second.

In 1979, the company was again found to be contravening a condition of its licence. Charges were laid in June, and on October 18 the company pleaded guilty. They were fined $50.00.

Great Canadian Oil Sands - 1976

In the summer of 1976 a series of inspections were carried out at G.C.O.S. (Suncor) in Ft. McMurray by Division personnel. As a result of the investigations, the following charges were laid under the Clean Air Act:

i) Excessive black smoke (the emissions into the ambient air of a visible air contaminant of a density greater than number 3 density).

ii) Excessive particulate emissions from the power plant (three separate counts of more than 0.85 pounds per thousand pounds of gaseous effluent).

iii) Excessive SO_2 concentration in the sulphur plant stack. (Concentration of sulphur dioxide in the flue gases being exhausted to the atmosphere from the sulphur plant incinerator stack shall not exceed one half hour average level of 16,000 parts per million by volume).

The company pleaded "not guilty" to all charges and trial was set for February 21, 1977 in Ft. McMurray. All four charges against the company were dismissed.

The Crown appealed each dismissal shortly thereafter, but the Appeals judge upheld the company's acquittal and the case was closed.

Lawrence Meier - 1976, 1978

Lawrence Meier and/or Lawrence Meier Trucking Ltd. owned an asphalt plant operating in Alberta. The Division first became aware of the plant in 1974, when the owner was requested to apply for a licence to operate for the 1975 asphalt season. After some correspondence with the Division, the company applied for a licence on September 4, 1975, but the application was deficient. A deficiency letter was sent to the company, however they did not respond so the licence was withheld. In the spring of 1976, the Division charged the owner with operating without a licence. The owner pleaded guilty and was fined $25.00.

On March 30, 1976, an application for a licence was received, however, it was deficient in some of its emission control devices. In November of 1977, the owner asked for a permit to install the necessary devices and for a licence application. A brief description of the device was requested by the Division, after which a number of letters regarding the installation of the device were exchanged between the two parties.

Throughout this time the company continued to operate until September 6, 1978, when an Emission Control Order was issued. A charge of operating without a licence was laid in November; the defendant pleaded guilty on December 6, 1978, and was fined $100.00.

Town of Airdrie - 1977

An investigation in early 1977 indicated that the Town of Airdrie was burning municipal wastes in an open garbage dump resulted in issuing an Emission Control Order to the Town. While monitoring the situation, the Air Quality Control Branch, Calgary office, again observed burning of wastes at the dump, and charges were laid for failing to comply with the Emission Control Order. The Town of Airdrie pleaded guilty to the offence and was fined $1,500.00.

Town of Stony Plain/County of Parkland - 1977

In early 1977 the Town of Stony Plain was observed to be burning municipal wastes in the local garbage dump. An Emission Control Order was issued jointly to the Town of Stony Plain, operator of the dump, and the County of Parkland, owner of the land on which the dump was situated. Shortly thereafter, the Town was again observed to be burning municipal wastes. Charges were laid in September for failing to comply with the Emission Control Order, however, the case was dismissed at trial. The presiding judge was of the opinion that a landfill or dump was neither a plant nor a structure, and he did not feel that the broad definition of "thing" could be stretched to cover it. Therefore, he felt, the Province had no authority to lay charges under the Clean Air Act thus dismissing the case.

The Crown appealed the ruling, using the argument that a dump must be a thing since it is not a plant, structure or natural object. The justice of the Court of Queen's Bench, who heard the appeal upheld the previous decision, saying that the provincial court judge had made no reversible

error in deciding that the definition of a thing does not stretch to cover landfills or dumps. The Clean Air Act was amended shortly thereafter to include landfills and garbage dumps.

Houg Cement Ltd. - 1977

Houg Cement Ltd. operating near Clyde, Alberta, was for a considerable length of time in contact with the Division regarding unacceptable emissions from their plant. Since the company appeared to be unco-operative an Emissions Control Order was issued in February of 1977. Shortly thereafter, having observed that the company had ignored the Order, the company was charged with failing to comply. The company pleaded not guilty at their preliminary hearing on April 4.

The trial date was postponed several times before being heard on October 21, 1977. The company changed its plea to "guilty" and was put on probation for two years. The terms of probation were to bring the plant up to provincial standards. At the end of the two years, Houg Cement was given a suspended sentence (the judge felt that previous court extensions were illegal).

National Salvage - 1976

In October of 1973, an Emission Control Order was issued to National Salvage Ltd. of Lethbridge. The company had repeatedly burned refuse in their yards in the City. During the next two years, it became apparent that the company continued to allow the open burning of materials on their property. A thorough investigation was begun to gather evidence for prosecution. A charge of failing to comply with an Emissions Control Order was laid in February, 1976. At the preliminary hearing on February 25, the defendant pleaded guilty and was fined $500.00

Kootenay Paving Ltd. - 1978

In the summer of 1978, an asphalt plant owned by McNally Contractors and operated by Kootenay Paving Ltd. was found to be operating near Bellevue without an operating licence. Because of the transient nature of asphalt plants, and because the Division had reason to believe that the asphalt plant would be moving out of Alberta in the near future, a single charge was laid against Kootenay Paving and McNally Contractors. Upon appearing in court in December, Kootenay Paving Ltd. pleaded guilty to operating without a licence and was fined $500.00. The charge against McNally Contractors was withdrawn.

Everall Construction Ltd. - 1978

On August 25, 1978, an asphalt paving plant owned by Everall Construction Ltd. was inspected by Division personnel. At that time the pollution control equipment was not operated in the manner required by the licence. The plant operator was asked to correct the problem immediately, however a second inspection on August 28 revealed that nothing had been done. Two charges of failing to comply with a term of their licence to operate were laid against the company. The preliminary hearing was held on December 19, 1978 at which time the defendant was found guilty. A fine of $200.00 was set for each charge.

Canadian Pacific Railway - 1979, 1983

The Department of Environment and Canadian Pacific Railway (C.P.R.) have often been at odds regarding the burning of old railway ties on the C.P.R. right-of-way. On November 10, 1978 and again ten days later, a

member of the Department observed the railroad burning ties at two different locations in the province. Since no authorization permit had been obtained, charges were laid against C.P.R., who pleaded "not guilty". At the trial, which was set for March 13, 1979, the judge found the company guilty on both counts and fined it $500.00 for each offence.

On February 12, 1981, C.P.R. was again charged with burning railroad ties without authorization. In August, after pleading "not guilty", C.P.R. applied to Provincial court to have the charges dismissed, on the grounds that C.P.R. was a federal company and that the right-of-way fell under federal jurisdiction. On September 9, the judge agreed with C.P.R. and dismissed the case. The Crown appealed the decision and the matter was heard in court on April 7, 1982. The judge reserved his decision until May 7, when he overturned the dismissal and reinstated the charge.

Trial was originally set for September 9, but was postponed several times. In February, 1983, the case was finally heard in court. C.P.R. was found guilty and fined $500.00.

Aquitane - 1981

On June 30, 1981, a fire broke out at Aquitaine's Ram River operation, resulting in emissions which exceeded the acceptable limits, causing some damage to surrounding vegetation; yet, the Pollution Control Division was not notified until July 17 of this occurrence. Since the damage was considered very serious, the company was charged with failing to report an uncontrolled emission verbally within 24 hours, and with failing to provide a written report of an uncontrolled emission within 72 hours. The company pleaded guilty on November 4, 1981, and was fined $500.00 for each count.

Celanese Canada - 1982

On August 24, 1981, a complaint was received regarding foul odours emanating from the Celanese plant in Edmonton. The complaint was investigated on August 25, and found that the odours came from a dredging operation at an old lagoon on the property. The inspector talked to plant personnel and found that this operation began on August 10, and was expected to last only a few more days. The company was charged with failing to report an uncontrolled emission within 24 hours and failing to provide a written report within 72 hours. At the same time a letter from the Division was sent to the company requesting an explanation of the problem. The defendant pleaded not guilty at the preliminary hearing and trial was set for January 29, 1982.

At the trial, the Crown counsel attempted to introduce evidence that the odour had begun around August 14, 1981. The judge ruled that this was inadmissable evidence, because the phrase "on or about" could refer fairly only to a 72 hour leeway and not to 10 days or more. A motion to amend the information to read "on or about August 13" was made and granted. At this point the counsel for the defence asked for an adjournment which was granted.

Trial resumed on April 7, 1982. The counsel for the defence argued that the lagoon did not form part of the plant, and therefore was not covered by the same legislation; it was further argued that, in any event, there was no wilful intent on the part of the defendant to conceal the emissions from the Division. The Crown insisted that wilful intent was not necessary for the charges to apply. Judgement was reserved until May 7.

On May 7, the judge ruled that the case had begun on August 24. There was no proof that the odour existed before that date and the charge of failing to report an emission within 24 hours was dismissed. The judge felt that since the complaint was investigated within 24 hours and plant personnel were interviewed, the 24 hour verbal notice had in fact been given. The charge of failing to provide a written report within 72 hours was also dismissed. The judge ruled that a letter sent to the company from the Division on August 25, 1981, asking for a report by September 1, effectively relieved the company of any responsibility for meeting the 72 hour deadline.

Rorison Enterprises - 1982, 1983

Rorison Enterprises first came to the attention of the Division in the summer of 1982, when a routine inspection revealed that the company was operating an asphalt paving plant without a licence, as well as not having adequate pollution control devices. A charge of operating without a licence was laid in September. The company was convicted and fined $1,000.00.

In the meantime the company applied for a licence to operate an asphalt plant. Since the application was deficient in some areas, the Division sent out several letters requesting more information. By March, 1983, it became clear that the proposed pollution control devices would not meet provincial standards. The company was informed of this conclusion but declined to reply.

On May 17, when the company was again found to be operating without a licence, charges were laid. After pleading, Rorison Enterprises was found guilty at the trial held on September 12, and fined $7,500.00.

Midvalley Construction - 1982

On July 14, 1982, an asphalt plant was inspected by Division personnel and found to have no licence to operate. Because of the transient nature of asphalt plants and because the Division had reason to believe that the plant would cease operations in Alberta within the month, charges of failing to obtain an operating licence were laid immediately. At the trial held in November, 1982, the company pleaded guilty and was fined $1,000.

Titan Foundries - 1983

In April, 1982, the Division received a complaint regarding heavy smoke emissions from Titan Foundries. An on-site inspection was conducted and through conversation with the plant manager, it was discovered that part of the required emissions control equipment had been shut down some time previously, apparently due to mechanical failure. At the time of inspection the repairs had been made but the equipment had not yet been connected. Letters were sent out from the Division requesting a report on the problem, and in May, an unannounced inspection of the foundry took place. The emissions control equipment was still not in place.

The company was charged with failing to report an uncontrolled emission within 24 hours, failing to provide a written report within 72 hours and failing to meet the terms of its operating licence. On July 5th the company pleaded "not guilty" and a trial date was set. The case finally went to court in January, 1983, at which time the company pleaded guilty to two charges: failure to report an uncontrolled emission within 24 hours and failure to comply with a term of the licence. The third

charge was dropped as a result of plea bargaining. Later inspections found that the devices had been reinstalled and operating conditions at the factory were acceptable. They were fined $500 for the first offence and $1,500 for the second.

A & B Rail Contractors - 1983

In March of 1983, a charge of burning railroad ties without authorization was laid against A & B Rail Contractors. A court appearance was set for April 25, at which time the company pleaded guilty. They were fined $100.00.

Cando Contracting/Petmond Contracting Ltd. - 1983

On March 28, 1983, a charge of burning railroad ties without authorization was laid against Condo Contracting. Upon further investigation, it was discovered that Condo Contracting was legally known as Petmond Contracting Ltd. The charge was relaid and a court appearance was set for May 4. At that time the company entered a "guilty" plea and was fined $100.00.

Mayer Metals - 1983

In April of 1983, the Division received a complaint regarding heavy smoke emissions from an incinerator. Upon investigation it was discovered that Mayer Metals Ltd., which operated a metal reclamation facility at that site, did not possess a licence to operate. The company was informed of the licencing requirements and was asked to apply for a licence. Shortly thereafter, three more complaints of heavy smoke emissions were

received by the Division. On May 11, an opacity test was carried out on the visible emissions by Air Quality personnel, resulting in two charges being laid on June 27, 1983. The first charge was for operating an incinerator without a licence, the second - for exceeding prescribed emission levels.

On November 18, 1983, the company pleaded guilty at trial to operating without a licence and was fined $750.00. The second charge was dropped as a result of plea bargaining.

Columbia Blacktop Ltd. - 1983

On September 24, 1981, a routine inspection of an asphalt plant operating in Alberta revealed that the plant was operating without a provincial licence. An informational package and an application for the licence form were sent to the company's head office in British Columbia, along with a request to comply with provincial legislation. Only in February of 1982, the company requested information on licencing requirements which was sent immediately.

On May 5, 1983, another routine inspection was done on the asphalt plant. Again it was discovered that the company had not obtained a licence to operate. It was decided to prosecute, and charges were laid on June 16. In the meantime, an application for a licence was received from Columbia Blacktop, which was granted on May 25.

A preliminary hearing was held on July 14, 1984, at which time Columbia Blacktop pleaded guilty to operating an asphalt plant without a provincial licence. They were fined $800.00.

Casa Dome Manufacturing Ltd. - 1983

In July of 1980, a routine inspection revealed that Casa Dome Manufacturing Ltd. did not have a licence to operate. The company was asked to apply for the necessary licence and in August an application was received in the Division. The accompanying letter stated that fibreglass would not be burned. A licence-to-operate was issued based on this information.

In November of 1982, two complaints were received regarding the company's burning of fibreglass waste which a local public health inspector verified. The Division then advised the company that open burning of fibreglass was prohibited and alternate methods of disposal were suggested.

On April 1, 1983, the company was again observed to be burning fibreglass, and as a result charges were laid on June 27, 1983. In September, however, the charges were withdrawn. The company had ceased to exist and Crown counsel felt that because significant harm done to the public, the eventual outcome of a trial with a non-solvent defendant would not likely justify its cost.

Speiss Construction Ltd. - 1983

Spiess Construction Ltd. was issued licences-to-operate for their Boeing 300 and Boeing 400 asphalt plants. As a condition of the licences, the company was to conduct a stack emission survey for each of the plants in each year of operation. The results were to be forwarded to the Division upon completion of the surveys.

A survey was done in 1981 for the 300 plant but not for the 400 plant. A letter from the company dated January 26, 1982, explained that the survey was not done because of "mechanical problems" with the plant.

On January 7, 1983, a Division representative telephoned the company to request copies of the reports required for 1982. The company's letter of response indicated that neither of the surveys were done for the two plants because "on one occasion the testing people came out and our plant was broken down", "on another occasion they came out and we had a rainstorm in progress", and "the summer just progressed and we just unconsciously put it out of our minds as being done."

Changes were laid against the company on November 30, 1983 for not conducting the required stack emission surveys in 1982 for both of the plants. On December 15, 1983, the company pleaded guilty and was fined $500 for each plant.

Batra Construction - 1983

On April 30, 1981, Batra Construction Ltd. was issued a licence-to-operate an asphalt plant at Winterburn, Alberta. As with all similar licences, one of the conditions provided that stack surveys were to be done every year.

On February 9, 1982, the Division contacted the company to inquire about the status of the 1981 surveys. In March the company replied by letter that the surveys were not done because of "bad weather conditions and low productions".

On June 8, June 23, July 13, and August 10, 1981 the Winterburn plant was inspected by a representative of the Air Quality Control Branch. The

plant was also inspected twice in 1982. The plant was operating during each inspection.

In January 1983, the company contacted the Division to explain that no stack surveys were done in 1982 for the Winterburn plant because of an "oversight" on the company's part.

During 1983, the Winterburn plant did not operate.

Charges were laid against Batra Construction on January 10, 1984, for failing to conduct stack surveys for their Winterburn plant as required by their licence to operate during the 1981 and 1982 operating seasons. The preliminary hearing was set for January 31, 1984, at which time the defendent failed to appear. The hearing was rescheduled for March 13. On April 26, the Crown withdrew the charges, since the company had ceased to exist some time previously, and it would have been of little value to pursue the matter further.

Gus Leduc Holdings Ltd. - 1984

Gus Leduc Holdings operate a portable asphalt paving plant. One of the terms of the licence requires "The baghouse stack shall be surveyed once during the 1983 asphalt seasons and once during each subsequent asphalt season to determine the level of particulate emissions."

The company failed to conduct the required survey on the plant during 1983, because of "poor weather, plant was moved often, and problems with getting a consulting company to do the survey."

The company had also failed to have stack emission tests conducted in the three previous years as well. Some of the reasons given for not conducting those surveys were "limited and sporadic production, poor weather, and plant breakdowns."

The company was charged in October, 1984 for not conducting the required stack survey in 1983, it pleaded guilty and was fined $500 on October 25, 1984.

Agricultural Chemicals Act

Earl Balderson - 1974

In July of 1974, a complaint was received by the Pesticide Chemicals Branch regarding improper use of herbicides. As a result, a charge of failing to obtain the proper licence was laid against the owner of the company, Earl Balderson, on October 30, 1974. A preliminary court date was set for November 13, at which time the defendant pleaded "not guilty". Trial took place on December 11. After hearing the evidence, the judge dismissed the case, saying that charges should have been laid against the company rather than the owner.

Bryan Rauquest/Hand Hill Air Spray - 1978

On or about May 31, 1978, Mr. Rauquest was contracted by a local farmer to apply a herbicide to the latter's crops. A complaint was laid against Hand Hill Air Spray, Mr. Rauquest's employer, which the Pesticide Chemicals Branch investigated. Neither Mr. Rauquest nor the company had been issued a licence to apply herbicides; on July 17, Mr. Rauquest was charged with providing a service involving pesticides without being licenced to do so.

On August 18, he pleaded guilty to the charge and was fined $50.00.

Foothills School Division - 1981

On May 14, 1981, an elementary school ground in Turner Valley was sprayed with herbicide to control weeds such as dandelions. As a result 42 children reported that they became ill. An investigation was begun,

and shortly thereafter charges were laid against two superintendents and the school division itself. The first charge was for spraying a pesticide not registered for that purpose in an urban area, and the second was for using an agricultural chemical which adversely affects or is likely to affect the health of others.

A preliminary hearing took place on June 25, at which time plea was reserved; July 9 was set as the day the court would hear arguments from both sides. A trial date would be set later.

On July 9, all charges against the two superintendent were dropped. The school division pleaded guilty and was fined $500.00.

Evergreen Erosion Control - 1981

On July 10, 1981, the Pesticide Chemicals Branch received a complaint from one of their own personnel regarding aerial spraying of herbicides in the Smoky Lake area. An investigation was begun three days later. Residents were interviewed and some 48 soil samples were taken in the suspect area. Subsequently, Evergreen Erosion Control was charged with five counts of applying a pesticide without a permit, and one count of improperly applying a pesticide near a body of water between June 8 and June 15, 1981. A preliminary hearing was set for February 26, 1982, at which time the defendant pleaded not guilty. A trial date was set for April, but since one of the prosecution's witnesses would have been unavailable on that date, trial was rescheduled for July. On July 26, the defendant pleaded guilty to four of the six charges and was fined $100.00 per charge. The remaining two charges were dropped.

Clean Water Act

Imperial Oil - 1974

On December 13, 1973, the Division was informed of a salt water pipeline break at the Imperial Oil site near Judy Creek. By that time an inspection was conducted the following day and several water samples were taken, the company had begun to repair the pipeline. Shortly thereafter, two more breaks were discovered and were also repaired.

The Division decided to prosecute the company because the pipeline breakages were common in that area. A charge of allowing a deleterious substance into a watercourse was laid; however, under the Clean Water Act, a fiat was to have been obtained prior to the laying of any charges. Since this was not done, the charge had to be withdrawn, but they were laid again when the fiat was obtained. On August 7, the case came to trial, yet after hearing considerable evidence, the case was dismissed. The judge felt that there was no direct evidence linking Imperial Oil to the damage, although witnesses had repeatedly referred to "Imperial's property". The judge also referred to the fact that continuity of evidence (water samples) could not be proved. No appeal of the case was made.

Amoco Petroleum - 1975

On or about January 14, 1975, the Division became aware of a salt water leakage from Amoco Battery #3 into Judy Creek. Two days later an investigator visited the site and inspected the leakage and the company's efforts to repair the damage that caused it. The investigator discovered

a second leak downstream from the first, of which the company was unaware. The Division was of the opinion that had Amoco been conscientious about cleaning up the first spill, the second spill would have been discovered much sooner; and since no spill reports had been filed by the company, and because of the frequency of spills of this type in the area, prosecution was considered. Two charges of permitting the deposit of a deleterious substance into a watercourse were laid under the Clean Water Act and the (General) Regulations.

At a preliminary hearing, held on May 20, Amoco pleaded guilty and was fined $200.00 per charge.

Trimac - 1975

Early in June of 1975, the Division received a complaint of a discharge flowing from Trimac Transportation Ltd. property. An investigation was launched and several water samples were taken. A charge of permitting the deposit of a deleterious substance in a watercourse was laid against H. M. Trimble & Sons Ltd., the owners of Trimac.

The preliminary hearing was held on November 6, at which time the defendant pleaded guilty and was fined $500.00.

Evergreen Mobile Home Park

Evergreen Mobile Home Park was prosecuted twice for the contravening environmental legislation. Early in 1972, the owner of the property began building a mobile home park without departmental approval. It was quickly determined that the water system was inadequate and the owner was notified of the problem. There was much correspondence between the owner and the

Division, most of it dealing with promises by the owner to conform to standards and then failing to do so. At the same time, the owner kept increasing the number of mobile homes on his property. By 1975, it became clear that the owner would not co-operate voluntarily. Since there was a housing shortage in the area, the park was not closed down. Instead, a Cease Construction Order was issued to halt the expansion of the park until a Permit to Construct had been obtained.

In addition, a charge of failing to obtain a permit to construct a waterworks system was laid against Evergreen Mobile Home Park Ltd. on November 20, 1975. The preliminary hearing was set for December 17, at which time the defendant pleaded not guilty.

The case finally came to trial on March 31, 1976. The judge felt he had no recourse but to dismiss the case because the Crown was unable to prove that Evergreen Mobile Home Park Ltd. was actually engaged in the construction of a waterworks system. The difficulty lay in the confusion between Evergreen Mobile Home Park Ltd. and Evergreen Mobile Home Park, both owned in part by the same person. The court acknowledged the difficulty faced in making sure the right defendant is charged when several dummy companies are involved.

Shortly after this decision, the company began developing Phase II of the park. A Stop Order was immediately issued to halt construction. Construction continued nonetheless and once again charges were laid. Before trial, however, the Stop Order was rescinded and the case had to be withdrawn.

For several months thereafter, the Division attempted to persuade the company to bring the park water system up to standard, but without the

owner's co-operation. In June, 1978, yet another charge was laid, this time for operating a water facility without a permit. In August, however, the charge was withdrawn for lack of evidence.

Happy Valley Recreation

Happy Valley Recreation was originally a recreational park built for day-use. In 1978, however, the park began accepting trailers onto the property as permanent fixtures. This caused problems regarding the available water treatment and wastewater treatment facilities. On July 20, 1978 a Water Quality Control Order to upgrade was issued by the Division requiring the company to comply by October 23.

The company did not inform the Division of its plans; on September 7, a letter asking for an application for a Permit to Construct by October 6 was sent to the company. The solicitors for the company responded that the land in question was owned by a third party and the company was only a leaseholder. They also indicated that the future of the park was in doubt. The Division extended the deadline for compliance of the order twice, each time for one week. By November there were indications that the company was in financial trouble.

Charges against the company, Happy Valley, and its manager, R. O. Allen were laid in November, 1978, firstly, for the company's failure to comply with a Water Quality Control Order in not obtaining a Permit to Construct, and secondly for failure to comply with a Water Quality Control Order in not submitting plans and specifications for an upgraded water system to the Division for approval.

Preliminary hearing took place on December 20, at which time the counsel for Happy Valley Recreation pleaded not guilty. Mr. Allen did not appear.

Trial was originally set for March 6, however, it was later postponed until May 15. In the meantime it was discovered that the Division had erred in charging Mr. Allen directly. At the same time, it was also discovered that Happy Valley Recreations had changed ownership and that the park would not be operational until a new, approved, water system was installed. All charges were withdrawn.

Colonnade Management - 1980

In the late 1970's, Colonnade Management began developing a subdivision on its own property. Originally a Permit to Construct had been issued by the Division for a water system to service the sub-division. About midway in the construction process, all work ceased on the water system and it was not completed, while development of the property continued. An Order to Construct was issued on November 9, 1978, in order to get the system finished.

After several months when it became apparent that the company did not intend to finish the water system, a charge of failing to comply with an Order to Construct was laid in August, 1979. The company pleaded not guilty and asked that trial be scheduled in the spring of 1980, because the owners of the company would not be in the country during the winter months. The case came to trial on March 31, 1980. The defendant was found guilty and fined $500.00.

Even with the conviction, however, the Division could not enforce the Order. Shortly thereafter, the property was sold and the owners of Colonnade Management left the country. Eventually it was the local government who upgraded the water system to provincial standards.

Power Farms/Pinebrook Estates - 1982

On June 19, 1981, an inspection was conducted on land owned by Power Farms and operated as Pinebrook Estates, as a result of a complaint of raw sewage running into a nearby creek. No approval had been given for a sewerage system in the area and the inspection revealed several deficiencies which were pointed out to the developer who promised to correct them.

By the end of July it became apparent that the present system was inadequate with regards to the number of houses it was intended to serve. A Water Quality Control Order was issued on July 20 to prevent the discharge of sewage into the sewerage system but the company failed to comply with the Order. Charges of operating a water facility without a licence and of failure to comply with a Water Quality Control Order were laid against Power Farms. On November 27 the company pleaded guilty; it was fined $250.00 for not obtaining the licence; and $1,250.00 for not obeying the Order.

After the trial the developer attempted to rectify the sewage problem by installing a tanker car to serve as a septic tank. When this solution failed the company was again charged with failing to comply with the Water Quality Control Order. It pleaded guilty and was fined $1,500.00. The situation was rectified to the satisfaction of the Department shortly thereafter.

Hilltop Estates - 1982

Hilltop Estates was a subdivision being developed in the early 1980's. By the time the Department became involved, 20 of the 40 lots had been developed. The existing watersystem was considered inadequate and the iron content in the drinking water was extremely high. The Standards and Approvals Division requested that the company upgrade the system but to no avail. On September 5, 1980, the residents of the development were informed that they were fully responsible for the water system, even though they had never formed a recognized association. The Division, however, continued to hold the developer responsible for the system.

On January 27, 1981, an Order to Improve was issued to the developer. By April no improvements to the water systems were made. It was also discovered that there was an error on the Order, and a new Order to Improve was issued on April 13. Again the deadlines passed.

In July, 1981, charges of operating a water facility without a licence and of failing to comply with an Order were laid. The developer pleaded not guilty and trial began on March 22, 1982. The judge dismissed the case on April 27, saying that the Crown could not conclusively prove who actually owned the water system.

Pine Shadow Trailer Park - 1982

In the mid 1970's Pine Shadow Trailer Park was established. A sewage lagoon was built to serve the trailer park, although the Division was not aware of its existence until a child drowned in it. An inspection revealed that no Permit to Construct had ever been issued to the developer. The lagoon was found to be deficient in that it had no

drainage system, nor an adequate fence surrounding it although was also only 150 feet away from the nearest occupied trailer.

The Pollution Control Division insisted that a chain link fence be erected. The developer refused to install the fence but did add barbed wire to the existing fence. An Order to Construct was issued in June 1981, indicating that a proper fence was to be constructed by August 31. The developer refused to comply and charges were laid in February, 1982. The preliminary hearing was held in March, at which time the developer pleaded not guilty. At trial on June 10, the developer reversed his plea to guilty and was fined $500.00.

Suncor Ltd. - 1982

In the spring of 1982, after receiving reports of water contamination by Suncor's Ft. McMurray plant; an extensive investigation was begun by the Division. The Fish and Wildlife Division of the Department of Energy and Natural Resources also became involved in the investigation. By October a total of 22 charges were laid against Suncor.

The Division itself laid two charges under the Clean Water Act: one - for exceeding effluent release limits, and another - for failing to report an uncontrolled release of effluent within 24 hours. The other 20 charges were laid by Fish and Wildlife and Chief Dorothy MacDonald of the McKay Indian Band.

The Division's charges were heard in October, 1982. The court dismissed the first charge, but convicted the company on the second and imposed a fine of $500.00.

Of the remaining charges, five were heard in January, 1983. Four were dismissed but the fifth was upheld and a fine of $8,000.00 was levied. At the time of writing, the other 15 charges have not yet been heard by the court. The Crown has asked for a stay of two years and the presiding judge has not yet handed down his decision regarding the stay.

Water Resources Act

Morris Palmer and Palmer Ranch Ltd.- 1976

Late in 1975, the Division, becoming aware of three dykes which changed the watercourse running through Palmer Ranch conducted an investigation with the co-operation of Fish & Wildlife. The dykes had been constructed without a permit and there was some concern about damage to the natural habitat of local fish.

In February, 1976, both Palmer Ranch and its owner, Morris Palmer were charged with diverting water unlawfully. At the preliminary hearing a plea of not guilty was entered and a trial date set for May 19. At the trial arguments for both sides were heard. On May 21, the case against Palmer Ranch was dismissed. The judge felt that Palmer Ranch was a "dormant object", and therefore could not be convicted of diverting a watercourse. The case against Morris Palmer was held over until July 8.

On July 8, the case against Morris Palmer was also dismissed. The Crown failed to prove that there was water flowing in the blocked channel before the dykes were built. The defence had claimed that the dykes only prevented spring flooding and did not interfere with the normal flow of the water. The judge accepted this argument.

An appeal was considered, but it was felt that it was not likely to be successful.

Big Lake - Tottrup/Day - 1976

In 1976, the Division became aware that a dyke system had been constructed near Big Lake without authorization. Alexander Day and Aage Tottrup were informed that the obstruction would have to be removed. When

they did not comply with the request, a Ministerial Order was issued by the Director of Pollution Control on May 13, 1977, allowing until June 15 to comply with the Order.

The defendants did not comply with the Order and charges were laid immediately thereafter. Mr. Day and Mr. Tottrup were charged with constructing a waterworks system capable of diverting water without authority to do so. Mr. Day was also charged with diverting water without authority.

The case was scheduled to be heard on June 29, however, the defendant questioned the validity of the Ministerial Order. On August 15, after listening to the evidence, the judge decided that the whole case depended upon the question of whether the Order was a judicial tool or an administrative one. On November 1, in a written decision, the judge decided that an Order was in fact a judicial tool. Therefore, because he felt that no evidence was submitted to indicate that the Director had considered the defendants' position regarding this matter, he ruled that the Ministerial Order was invalid.

The Division then withdrew the charges against Mr. Day and Mr. Tottrup since it was felt that a prosecution would not likely succeed.

Gallelli Stockwatering Dam - 1981

An unauthorized dam was discovered on property owned by two brothers, Joseph and Kenneth Gallelli in 1979. The Division conducted several inspections and met frequently with the brothers. When it became clear that the dam would not be removed voluntarily, a Ministerial Order to remove the dam was issued on January 22, 1980. An inspection done on

April 8 revealed that the dam was still in place and that the Order had been ignored.

A charge of failing to comply with a Ministerial Order was laid on June 19. A preliminary hearing was held on July 17 and a "not guilty" plea was entered. The trial was finally heard on February 3, 1981. At one point the purpose of a Ministerial Order was questioned by the court, but at the conclusion of the trial, the defendants were found guilty and fined $100.00 each. The fine was low because it had been established that the dam had been in place when the defendants had purchased the property.

Armstrong/Jorgenson - 1982

In 1981, it came to the Division's attention that a small dam had been constructed on property owned by Mrs. Armstrong and Mr. Jorgenson. Several inspections were conducted and meetings were held to determine the dam's status. The defendants were unwilling to remove the structure and a charge of constructing or maintaining an unauthorized waterworks system was laid against each one of them. On January 13, 1982, Mrs. Armstrong pleaded guilty and was fined $25.00. Mr. Jorgenson's case went to trial on February 22. The case was dismissed since the judge felt that the Crown had not sufficiently proven jurisdiction for the court.

Faireye Construction - 1982

In June of 1981, the Water Resources Branch received a complaint of flooding. An investigation was begun and it was discovered that a drainage course had been blocked by Faireye Construction. There was evidence that the blockage had caused flooding in the adjoining property and damage to a nearby road.

On July 2, a letter was sent from the Division to the company requesting the removal of the blockage. On July 14, the site was again inspected, revealing that the blockage was still in place.

On August 18, a Ministerial Order directed the company to remove the blockage within ten days of the date of the Order.

An inspection was done some time after August 28, and once again the blockage was still in place. A charge of failure to comply with a Ministerial Order was laid in October. The company pleaded "not guilty" at the preliminary hearing and a trial date was set for February 22, 1982.

At the trial, the defendant company was found guilty as charged. The judge, however, had several questions regarding the jurisdiction of the Water Resources Act and so imposed a token fine of $1.00.

The Crown considered appealing the fine, but since in the meantime the blockage was removed, no further action was taken.

Doug Johnson - 1982

In September, 1982, a Ministerial Order was issued to Doug Johnson to remove an unauthorized dam on his property. This move came after several months of trying to negotiate the dam's removal.

Following an inspection shortly thereafter which indicated that the dam was still there, Mr. Johnson was charged with operating or using a waterworks diversion device without authority, and with failing to comply with the Ministerial Order. The defendant did not appear at the preliminary hearing and was apprehended for failing to do so.

The defendant appeared on January 12, 1983, and pleaded not guilty to the charges. The case went to trial on May 12, where Mr. Johnson was found guilty and was fined $300.00 for each offence.

Groundwater Control Act

Dean's Water Well Drilling - 1978

In the summer of 1978, the Division became aware of Dean's Water Well Drilling operating in Alberta. An investigation revealed that they were operating without a licence. On July 4, 1978, the company was charged with two counts: one - for operating without a licence, and another - for operating a drilling machine without a permit. The owner/operator was also charged at the same time, but they were later dropped.

The company pleaded guilty at the preliminary hearing to operating without a licence and was fined $25.00. The second charge was withdrawn.

W & G Water Well Drilling - 1979

A routine inspection conducted on November 2, 1978 revealed up an improperly drilled water well, serving an oil drilling company. After considerable investigation it was determined that W & G Water Well Drilling had drilled the well. A charge of failing to submit notification of commencement of drilling was laid against the company. On January 24, 1979, the company pleaded guilty. The judge agreed with the Crown's recommendation of a minimum fine and levied a fine of $25.00.

Wally Scott - 1979

In July of 1979, it came to the Division's attention that Wally Scott was operating a water-well drilling unit without a valid licence. Two charges of operating without a licence were laid. The first charge was heard on October 24, at which time the defendent pleaded guilty and he was fined $10.00. The second case was heard on November 16. The defendent also pleaded guilty to that charge as well and was fined $25.00.

Calnor Drilling - 1980

Early in 1980 a consumer had contacted the president of the Alberta Water Well Driller's Association to determine the approximate costs of having a water well drilled. After some discussion the caller indicated he could get it done for less money and the conversation ended. The president of the AWWDA then contacted the Division.

An investigation revealed that the consumer had hired an unlicenced driller, Calnor Drilling, to do the job. Calnor Drilling was then charged with operating without a licence. The company pleaded guilty on March 5, 1980, and was fined $60.00.

Garrity & Baker Drilling - 1980

In December of 1979, a complaint was received regarding Garrity & Baker Drilling and some work they had done. A review revealed that the company was not licenced by the Division. A charge of operating without a licence was immediately laid. The case came to court on March 18, 1980, at which time the defendant pleaded guilty. He was fined $200.00.

APPROACH TO POLLUTION CONTROL

ENFORCEMENT - COMPLIANCE

by

Pollution Control Division

Alberta Environment

November 1984

9820 - 106 Street
Edmonton, Alberta
T5K 2J6

ENFORCEMENT - COMPLIANCE

- What do we mean by enforcement?
- What do we mean by compliance?
- What is the level of compliance?

Within the Division of Pollution Control enforcement is considered to mean any activity that is undertaken by the Department to ensure a facility complies with the environmental legislation to ensure their emissions will have a minimal effect on our environment and not effect our overall use and enjoyment of our environment.

This includes the facilities design information, and issuance of a Permit to Construct; the issuance of a Licence to Operate, once the facility has been constructed to meet environmental requirements; monthly and annual reports from the facility; the Divisions' monitoring, surveillance, inspection and quality assurance program; as well as the Hierarchy of Enforcement (Technical, Directive, Control Order, Stop Order and Prosecution).

Compliance is considered to be a measure of how the performance of the facility relates to, or compares to the various Acts, regulations, guidelines, objectives, monitoring directives, licence requirements and other requests from the Division. The document titled "Environment Enforcement Program", issued by the Pollution Control Division, lists 15 specific groups of items that are reviewed to determine compliance. All items of non-compliance (referred to as contraventions) are reviewed as to necessary follow-up and enforcement requirements to be undertaken by the Division.

Enforcement procedures vary depending on what the item of non-compliance is and how it contravenes the specific requirement. For example, compliance with the Maximum Permissable Regulation, concentration of Air Contaminants in the Ambient Air, under Part 1 of the Clean Air Act (Maximum Levels), for SO_2; H_2S; NO_2; CO; Oxidant; Suspended Particulates and Total dustfall are enforceable through the Technical Approach Directive, Control Order, and Stop Order provisions. Non-compliance with the Control Order and Stop Order means they are then enforceable through prosecution. There is no direct penality associated with Part 1. On the other hand, Part 2 (Visible Emissions); Part 3 (Particulates); and Part 3.1 (Gaseous Emissions), of the same regulation has a direct penality clause associated with them. The penalty on Summary Convictions is a fine of not more than $1,000 for each day or any part thereof that the offense continues.

The Alberta Surface Water Quality Objectives are used in a similar manner to Part 1 of the Clean Air Maximum levels regulations, in that a contravention of the specific levels, of either, provide a base line for further action under the "Hierarchy of Enforcement" program.

In the required monitoring by facilities, they have to report all contraventions recorded by them and some of these may be due to emissions from other facilities impacting on this monitoring. Under the regulations, a facility has to report any uncontrolled, or unlicenced, or accidental release of contaminants within 24 hours and confirm the release, with details within 72 hours. Each incident is recorded by the Division and given a contravention

number. To ensure contraventions, whether directly enforceable or not, are reviewed, the Division of Pollution Control follows up on all contraventions.

During July 1, 1983 to June 30, 1984, the Air Quality Control Branch had approximately 856,000 hours of ambient pollutant level figures and 1,927,000 hours of results from continuous instack monitors submitted by industries as required by their Licences to Operate. Based on this data, the overall ambient compliance rate was 99.6% and the overall source compliance rate was 99.55%. The Water Quality Control Branch reviewed 504 contraventions.

A review of the contraventions reviewed by Air Quality Control Branch (for September 1984) show that 30 - 40% of the contraventions were due to process upsets; 25 - 35% due to instrumental and equipment failure; 15 - 20% due to plant start up/shut down; and 10% due to atmospheric conditions (inversions).

Using the broad use of the word contravention, the Alberta facilities have an excellent compliance record. Table 1 shows the overall compliance under the Clean Air Act of the 14 Industrial Groupings and Table 2 shows the overall compliance under the Clean Water Act.

TABLE I
CLEAN AIR ACT - COMPLIANCE
July 1, 1983 to June 30, 1984

Industry Type	With Licence Conditions	With Maximum Levels (Ambient)
Sour gas	99.65	99.84
Oil Sands	85.36	97.34
Power Plants	100	100
Fertilizer	99.33	99.84
Pulp & Paper	99.83	97.68
Refineries	98.91	99.96
Chemical Plants	99.78	99.37
Heavy Oil Plants	100	99.97
Cement	99.69	-
Fibreglass	100	-
Steel & Foundaries	100	-
Comp. Stns.	-	100
Overall	99.55%	99.60%

NOTE: a) Overall the ambient readings have been within the Clean Air (Maximum Levels) Regulation 99.60% of the time. There were approximately 855,589 hours of continuous ambient monitoring carried out by industry in Alberta during the period July 1, 1983 to June 30, 1984. During this period there were 3,850 hours of readings in which the Clean Air (Maximum Levels) Regulation were exceeded.

b) Overall industry in Alberta was within the Clean Air Licence requirements based on stack limits 99.69% of the time during the period July 1, 1983 to June 30, 1984. There were approximately 1,927,200 hours of in stack monitoring carried out by industry. During this period 6,068 hours of readings were reported in which licence requirements based on stack limits were exceeded.

c) During this time period 2,817 hours of uncontrolled, unlicenced and accidental releases occurred from all industry groups. The majority of these were from the sour gas and oil sands industries.

Table 2. ALBERTA ENVIRONMENT - POLLUTION CONTROL DIVISION
WATER QUALITY CONTROL BRANCH
ENFORCEMENT AND MONITORING SUMMARY

COMPLIANCE SUMMARY - JULY 1983 TO JUNE 1984

Industrial Sector	Number of Plants	Tests Conducted	Tests in Compliance	% Compliance
Chemical	11	6,254	6,187	98.9%
Fertilizer	8	14,082	13,860	98.4%
Oil Sands	2	1,012	1,012	100%
Refinery	5	8,936	8,853	99.1%
Power Plants	4	1,468	1,455	99.1%
Pulp and Paper	2	2,400	2,355	98.1%
Gas Processing	5	9,604	9,566	99.6%
Iron and Steel	1	468	468	100%
Coal Mining	3	1,258	1,232	97.9%
Food Products	2	330	320	97%
Others				
TOTAL/OVERALL	43	45,812	45,308	98.9%

POOR

QUALITY

ORIGINAL